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## IN THIS ISSUE

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# Structural Differentiation, Efficiency, and Power<sup>1</sup>

Dietrich Rueschemeyer  
*Brown University*

The theory of structural differentiation, long a major conceptual tool of the study of social change, is critically reviewed. The link between differentiation and efficiency advantages involves a number of unsolved problems. In addition, past differentiation theory paid too little attention to actual processes of differentiation as well as de-differentiation. Both sets of problems can be tackled better if power constellations and power interests are systematically introduced into the analysis of differentiation and de-differentiation.

Division of labor, specialization, the structural differentiation of functions—these concepts have served as conceptual tools for the study of social change since the very beginnings of modern social theory. In spite of this long history, our understanding of structural differentiation is rather poor, so poor in fact, that a *theory* of structural differentiation is still more a goal than an accomplished reality. What is presented as the theory of differentiation consists largely of either concept formulations or descriptive generalizations about tendencies toward greater social complexity in long-term historical developments.

In particular, past and present theories say little about the causes of structural differentiation. More attention has been paid to its consequences, especially after Marx joined the debate, although his concern with the relation between the division of labor and changes in the class structure has since receded to the background. Instead, Durkheimian interests focusing on problems of moral integration and anomie assumed a central role in recent theoretical work on structural differentiation (see Eisenstadt 1964; Smelser 1963; Parsons 1961, 1966). Significantly, the most important causal arguments are of the functional type, that is, an analysis of the consequences of differentiation serves as the basis for an indirect causal explanation. This model plainly requires a careful study of "feed-back mechanisms" or "causal loops," which link the effects of differentiation to its causal conditions, a requirement that often has been either neglected altogether or fulfilled by global assumptions only. In this essay I shall identify some of the critical problems of the prevailing functionalist approaches, which are built on asserted links between differentiation and efficiency, and argue that a causal analysis of actual

<sup>2</sup> I wish to thank Mark Elchardus, Josef Gugler, George C. Homans, and Martin U. Martel for critical comments and suggestions.

processes of differentiation can be advanced significantly by focusing on the role of power.<sup>2</sup>

## I

"Structural differentiation is a process whereby one social role or organization . . . differentiates into two or more roles or organizations. . . . The new social units are structurally distinct from each other, but taken together are functionally equivalent to the original unit." Smelser's definition (1959, p. 2; 1963, p. 34), shared with certain variations by most recent theoretical analyses, establishes a concept significantly more inclusive than the older "division of labor": It does not limit itself to the economic sphere, and it deals with more complex structural elements than roles—with organizations and on occasion with even broader and less tangible phenomena such as institutions, values, and cultural complexes. While there is considerable merit in this broader concept, which derives from Spencer, it requires further theoretical distinctions. For instance, it is necessary to recognize that differentiation at the level of roles can go hand in hand with an agglomeration of functions at the level of organizations or broader institutional complexes, and vice versa.

For Smelser, and to an even greater extent for Parsons (1961, 1966, 1971) the "structural differentiation of functions" is part of an elaborate and complex conceptual framework which relates different structural forms and the functions they serve to a catalog of structural components and functional problems inherent in a postulated model of society conceived as a system with different levels and kinds of subsystems. This framework helps to solve important analytic problems. For instance, it aids in identifying and distinguishing different functions and in assessing which seemingly diverse efforts are in fact serving the same function—are "functionally equivalent." In this framework any particular function is analytically specified by its relation to an inclusive system or to one of several subsystems, each with its special set of functional problems.

A major shortcoming I see in this very ambitious attempt at theoretical conceptualization is that the transition from abstract analytic definitions to concrete structures and processes, often empirically identified in terms of prevailing social rather than theoretic sociological definitions, remains a difficult and uncertain undertaking, in which common sense and even

<sup>2</sup> There is no space here to trace the theoretical antecedents of relating the division of labor and organization to power structures and power interests. Important leads, though of a quite different nature, are found in the works of Karl Marx, Ludwig Gumplowicz, and Max Weber. My own thought is indebted to Lenski's comparative analysis of power and stratification (Lenski 1966) and, more generally, to the work of Talcott Parsons.



arbitrary decision too often have to complete the "translation." For this and other reasons, I prefer in this essay to work with a much simpler and less demanding theoretical scaffolding. Rather than ground every assessment of functions in theoretically postulated functional needs of "society" and its subsystems, I shall speak of *problems* identified and defined by the needs, interests, and expectations of different constituencies, which may or may not overlap in their composition and agree in their determination of the problems. These problems are dealt with by roles, organizations, and organizational complexes in more or less differentiated or aggregated fashion. Although this strategy leaves unsolved important problems of comparability of different concrete structures and "functional" problems, it does allow us to tackle a number of crucial theoretical issues without the encumbrances of a comprehensive analytic model of society. When faced with certain questions of determining and classifying problems and structures, we may still borrow from the more comprehensive analytic frameworks developed by Parsons and others.

In an earlier publication (Rueschemeyer 1974), I reviewed critically the current state of the theoretical analysis of structural differentiation. Here I shall discuss only one major tenet of past and present theories, the alleged link between differentiation and efficiency advantages; reviewing the shortcomings of what might be called the efficiency theory of differentiation will serve as an introduction to the arguments about the role of power in processes of differentiation and de-differentiation.

## II

Since Adam Smith, it is above all the increase in efficiency attributed to specialization which has served as an indirect causal explanation of structural differentiation of social roles and organizations. The connection between structural differentiation and efficiency is not a simple matter. Its major aspects can be stated in several propositions: (1) Separating organizationally instrumental tasks and interests from other human concerns makes it possible to arrange things more single-mindedly for a rational pursuit of chosen ends. This is of fundamental importance because roles, relationships, and organizations best suited for "getting things done" are by no means optimal for other universal and, at least in the long run, equally urgent human interests—for enjoying the fruits of one's labor for instance or for getting along with one another, for bringing up children, and perhaps for coming to terms with fundamental problems of meaning and motivation. (2) Specialized executive roles are an important means for reaping the benefits of further specialization of instrumental roles to be indicated below. Such roles integrate the differentiated

parts and are the major locus of the social control of performance and of organizational planning. (3) Delimiting tasks narrowly and clearly facilitates the evaluation of performance. This in turn allows rewards and punishments to be tied more closely to the work done and provides a better basis for prediction of performance, thus aiding in more rational hiring and allocation of personnel. (4) Separating simple from complex tasks permits economies in training and recruitment. The efficient use of the untrained and the less gifted may be as important as or even more important than the opening of greater opportunities for the able.<sup>3</sup> (5) Dividing instrumental tasks further and further makes concentration on a few activities possible—a form of differentiation with obvious, but easily overrated, efficiency advantages. (6) Once the principle of a division of labor is fully established, it becomes possible to conceive of roles and organizations as building blocks to be used in rational organizational architecture. This makes organizations more adaptable to a changing environment and to technological innovations.

While these propositions are plausible, they should not, as is often done, be regarded either as established or as a complete analysis of the problem. First, these propositions must be tested systematically with the goal of identifying specific conditions particularly favorable *or unfavorable* to the different efficiency advantages. Second, a more complete analysis would take into account competing hypotheses about certain “costs” of differentiation which may arise out of the need for integrating more differentiated units, for instance, or from the problems of morale and motivation induced by high levels of specialization. The balance of these costs and gains in regard to efficiency may be positive or negative, depending on different environmental, technological, and sociocultural conditions. A crucial third set of questions would ask how different outcomes in terms of efficiency in turn affect the conditions furthering or inhibiting differentiation. Rational planning on the basis of past experience, differential survival of various competing social arrangements, and diffusion, which may or may not be based on rational understanding, are the major links between the outcomes and the conditions of differentiation implied in recent theoretical formulations; but the circumstances under which these “feed-back

<sup>3</sup> W. J. Goode (1967, p. 17) has argued that “the modern system is more productive because its social structures *utilize the inept more efficiently*, rather than because it gives greater opportunity to the more able.” The interrelations between different aspects of differentiation and its consequences are more complex than this assertion of Goode indicates. The level of competence and incompetence in various strata is in part a function of previous developments of differentiation. The thrust toward a division of tasks indicated in the two previous and in the following points is likely to debase and to limit the competence of many individuals. The “production of the inept” is as important a topic as their subsequent, and often quite limited, protection and efficient use. I wish to thank Mark Elchardus for his insistence on this point.

mechanisms" work and the ways in which they influence each other are not at all well understood.

There is, however, a more fundamental problem that plagues all arguments about increased efficiency or "adaptive capacity" in the operations of collectivities. Any judgment about efficiency hinges on a given set of ranked goals and on a given evaluation of alternative means to reach these goals. What is efficient in terms of one preference structure may be wasteful by other criteria. Not only different cultures, but lord and serf, entrepreneur and worker, executive and employee, as well as many other social categories, differ fundamentally in their evaluations of the price paid and the advantage gained with a new arrangement of their social relations; and since preference structures and cost-benefit calculi vary, what efficiency means is always and inevitably determined by varied interests and value commitments.

Once this formal character of the concept is recognized, efficiency cannot serve the central role in a functional explanation of structural differentiation it has been assigned in the past. The indeterminacy of an abstract cost-benefit calculus is much too complex an issue to allow here even a brief review of the various attempts to come to a theoretical solution. I will content myself with the simple assertion that neither the discussions of welfare economics (see Arrow 1951; Mishan 1968) nor the strategy in social theory, argued by Talcott Parsons since the *Structure of Social Action* (Parsons 1937), of looking for shared goals and standards of evaluation in systems involving a plurality of actors, has succeeded in resolving the basic problem. Neither approach has led to solutions suitable to dispose of the indicated critique of an explanation of structural differentiation in terms of increases in the efficiency or "adaptive capacity" of whole economies and societies.<sup>4</sup>

These difficulties can be reduced considerably, though not eliminated in principle, if it is possible to identify in a given social context structural positions with disproportionate power, for power is by definition a chance

<sup>4</sup> It may be noted in passing that the implications of the critical argument advanced go far beyond the theoretical issues under discussion. Another conclusion would be, for instance, that the use of data on the gross national product (GNP), standardized in relation to population size or other economic resources, is a highly problematic means for comparing the efficiency of different economies, developed or underdeveloped, capitalist or socialist. The prices used in these aggregate calculations are the result (1) of complex need patterns backed up by differential income, (2) of diverse market conditions which are based on different institutional arrangements and on the differential power of various economic groups, and (3) of political and administrative decisions which play a different role in different economies. This is not even to mention that many aspects of human welfare do not enter the economic price calculus at all and that the borderline between conditions that are and those that are not expressed as priced costs and as incomes varies considerably from economy to economy.



greater than others' to realize one's goals even against resistance,<sup>5</sup> and a large share of power concentrated in the hands of individuals and solidary groups with similar preference structures therefore implies that a certain type of cost-benefit calculus gains a disproportionate influence on what happens in the situation. The interests and reactions of the most powerful are thus a point of great leverage for any analysis of this kind. They are in fact treated in such a manner in many studies, but the strategy typically remains implicit and does not receive adequate theoretical recognition. For instance, in his analysis of the industrial revolution in the British cotton industry, Smelser (1959) makes "dissatisfaction" the first of several phases in a development of structural differentiation without specifying theoretically whose dissatisfaction is relevant. In the empirical application of the theoretical framework this turns out to be the dissatisfaction of the early entrepreneurs and shop owners. Eisenstadt comes closest to the position advocated here. In his comparative analysis of pre-modern bureaucratization (1963) he focuses on the interests of the ruler, of the aristocracy, and of urban groups, which gain importance and power with the advance of market exchange and bureaucratic rule.

The structure of theoretical reasoning may very well—though it need not—remain functionalist in character, taking off from efficiency gains and other consequences of differentiation and then seeking to identify links between these consequences and conditions favorable or unfavorable for processes of differentiation. The points of reference of the analysis, however, are strategically altered by focusing on the powerful. The preference structures relative to which the consequences of differentiation can be analyzed become thereby more amenable to analysis. The unmanageable complexity of an endless variety of preference structures is reduced to a few patterns of interest and valuation. Furthermore, the behavior and even the attitudes and sentiments of the more powerful are better documented in the historical record than the behavior and attitudes of common people, an obvious advantage for any investigation of long-term social change, which almost by necessity must make use of historical sources.

Of greater theoretic interest is the fact that it appears possible to predict some of the interests pursued by the powerful; this endeavor would increase the explanatory power of the analysis considerably. It seems reasonable to assume, though this need not remain an untested assumption, that those in positions of power will seek to maintain their advantage and under certain conditions even attempt to increase it. It has been argued against this proposition that the assumed tendency depends on the total

<sup>5</sup> For the present purpose, it seems reasonable to use this general definition of power, which goes back to Max Weber ([1921] 1968, p. 53). Later his more specific concept of "domination" or "authority," defined by the probability that a command will be obeyed, will be used primarily.

balance of benefits and costs experienced by incumbents of power positions as compared to their life chances when out of power and that this balance varies with different circumstances in ways not easily predictable.<sup>6</sup> No doubt the proposition can and must be further refined and specified as to varying conditions. Yet as a rough generalization it seems established that differential power tends to be associated with differential advantages of other kinds. In addition, those in power will often think and act in terms of positional—in contrast to, and in addition to, personal—interests, strengthening a concern with maintaining their power resources. Finally, for all analyses involving large numbers of individuals and groups in positions of power, one can advance the statistical argument that the proportion of those who seek to maintain and extend their advantage will be increased by virtue of the fact that they have a better chance of remaining in power positions than those who make no such efforts. This argument merely presupposes that power can vanish if not taken care of and that attempts to husband and extend one's power resources have some effects in the intended direction. Clearly the powerful will pursue other interests as well, and a concern with maintaining their power resources is inevitably only one of several interests. However, to identify even one substantive interest that is relatively stable and relevant for policy and large-scale change is an important theoretical gain.

The study of the "causal loops" linking the consequences to the conditions of differentiation is also simplified by the approach suggested. Not only are the intentional reactions to perceived consequences stronger if one focuses on the powerful; one can also exclude a number of effects from the analysis because in many instances the powerful will not suffer—and thus count as "costs"—the consequences of their policies. Increased monotony of work or heightened job insecurity, for instance, have been of little concern to entrepreneurs unless worker morale or the politics of labor relations seemed affected. Finally, one can at least speculate that there is a correlation between holding positions of power and tending toward rational action, that is, action based on a review of goals and means in the light of one's basic preferences and the best information available about the consequences of alternative courses of action. Rational action in this sense represents an important causal loop which links possible and actual consequences of differentiation to the condition of its development.

Focusing on phenomena of power in the study of structural differentiation, then, leads out of the impasse that results for the prevailing functional approach from the formal character of the concept of efficiency, it simplifies the empirical investigations required, and it increases the explanatory

<sup>6</sup> George C. Homans raised this objection when an earlier version of this paper was presented to a colloquium at Harvard University in 1974. I am grateful for having been pressed to clarify my underlying arguments.

power of the theoretical analysis. This strategy also holds great promise for a better understanding of differentiation on other grounds. The distribution of power resources and the substance of power interests are, I submit, a major causal determinant of the actual social changes involved in differentiation. In the past, the role of differentiation in broad patterns of general evolution often received the greatest attention.<sup>7</sup> This has muted questions concerning the immediate causal circumstances and the actual processes leading to various types of differentiation. Furthermore, concentrating on the assumed "fact that the division of labor advances regularly in history," theorists have often failed to study the obstacles which must be overcome in processes of differentiation. A comprehensive analysis of both favorable conditions and obstacles plainly is required for a better understanding of how differentiation comes about. In this, considerations of power should have a central place. A related problem area neglected in past research is the analysis of instances of "de-differentiation," of processes in which previously separate roles or organizations are fused to deal with a broader set of problems. Investigation of this area, too, has been hindered because theoretical inquiry has concentrated on the broad pattern of advancing differentiation in western history. Studying both differentiation *and* de-differentiation within the same theoretical framework seems a promising strategy for understanding better the immediate causes and processes involved in either development, and it is my thesis that power interests and power resources play an important role in both.

Changes in the social division of labor have often been regarded as major determinants of other changes in the social structure, including the structure of power. In fact, the division of labor and, more broadly, the "relations of production" have been viewed as *the* aspect of social structure through which environmental factors, technological developments, and population change result in changes in other features of the social organization of human life. The analytic strategy proposed here does not intend to reverse this model and assert that social power is the master variable controlling all social change or all aspects of structural differentiation. That would mistakenly equate social power with social causation, and it would negate the interconnections between structures of power and cultural, social-economic, and environmental factors. What I do assert,

<sup>7</sup> To cite the words of Durkheim ([1893] 1964, p. 233), as one example among many, "What causes have brought about the progress of the division of labor? To be sure, this cannot be a question of finding a unique formula which takes into account all the possible modalities of the division of labor. Such a formula does not exist. Each particular circumstance depends upon particular causes that can only be determined by special examination. If one takes away the various forms the division of labor assumes according to conditions of time and place, there remains the fact that it advances regularly in history. This fact certainly depends upon equally constant causes which we are going to seek."

however, is that the distribution of power resources and the interests and actions of the powerful, though themselves dependent in the long run on other circumstances, are among the major factors determining how a given pattern of social organization responds to changes beyond its immediate institutional control. Power variables may have long-term effects of their own, too, provided that there is sufficient continuity in the structures of power and the associated policy propensities. I have suggested elsewhere (Rueschemeyer 1974) that the interests of the powerful in maintaining their position seem to be sufficiently similar in different societies and periods to result in a stable core of interests despite elite turnover and structural change. In analogy to the notion of a *raison d'état* one might speak of a *raison d'élites* to designate this similarity in all but the least complex societies.

In the remainder of this essay I shall seek to demonstrate the utility of considering power variables in the analysis of differentiation and de-differentiation. First I shall discuss how power interests affect processes of differentiation within a unified sphere of organized domination. The next section will consider interactions of relatively independent centers of power and their impact on the division of labor and organization, while a third section is concerned with de-differentiation as a function of power structures and interests. I shall concentrate throughout on selected instances and themes that appear particularly suited to elaborate and specify the general argument.

### III

Structural differentiation pursued by power holders in their own sphere of authority represents the simplest form of an interaction between structures of power and processes of differentiation. It comes closest to the model based on efficiency because the interests of the ruler suffer little interference and thus provide a relatively unambiguous and stable point of reference relative to which effects of different policies and developments can be assessed. In fact, the counterpart of the political ruler in the economic sphere, the capitalist entrepreneur, provided the model for what was generalized in economic and social theory as the efficiency perspective on differentiation.

There is good reason for the hypothesis that some form of organized domination is, in evolutionary terms, a necessary condition for developments that go beyond the most elementary division of labor built on differences of age and sex and on the organization of family and kinship.<sup>8</sup> Aside

<sup>8</sup> It is worth noting that two theorists as different as Gerhard Lenski and Talcott Parsons assign a similar importance to the emergence of organized domination for the evolution of a more complex division of labor (see Lenski 1966 and Parsons 1964).

from the efficiency advantages of specialized executive roles noted earlier, the crystallization of positions of social authority separate from kin and family roles establishes certain preference structures as stable standards for judgment and action, and it creates an instrument for the accumulation of capital as well as the aggregation of demand—two important requisites for all roles that serve specialized goals and do not immediately secure their incumbents' livelihood.

One incentive for rulers<sup>9</sup> to move toward a division of labor and organization in their own household and staff derives from the gains in efficiency this may bring about. Another set of considerations involves the advantages and disadvantages differentiation has for maintaining and expanding the power of those in charge.<sup>10</sup> These latter effects of differentiation are specially relevant for political rulers, but they are of some importance for incumbents of any position of hierarchical leadership and control. Both considerations may lead to the same conclusion as, for instance, in the case of closer evaluation of performance and stricter work discipline as a result of specialization. Of more theoretical importance are those cases in which the conclusions do not coincide. Such a divergence has two primary sources. First, division of labor and organization often leads to problems of supervision and control of the more specialized staff and, second, its direct and indirect effects may erode the bases of authority of the ruler in the wider society. Each problem will be discussed in turn.

Beyond some point of differentiation, increases in the number of specialized roles (as well as the often-correlated increases in the number of people and the scope of operations involved) require a division and delegation of authority because one person, family, or clan is no longer able to cope with the problems of supervision, discipline, and direction. Delegation of authority, however, creates problems for continued central control. An increased number of specialized roles often entails the subdivision of organizations; this in turn is likely to aggravate control problems and jeopardize the power of the ruler. Moreover, higher levels of organizational and technological complexity require specialized skills and

<sup>9</sup> The following discussion will deal primarily with the political realm. On occasion it will turn to the economic realm in order to pursue important similarities and analogies. Thus, the term "ruler" is used primarily in the narrow political sense, but is on occasion broadened to mean any incumbent of a position of organized domination.

<sup>10</sup> One can never assume that complex objective cause-effect relations are fully understood and foreseen by the actors. However, important as the exact role of knowledge and ignorance may be as a subject for research, here we will neglect the resulting variability and postulate that a combination of factors will make for a rough correspondence between the interests of rulers and prevailing policies. Among these factors are: (1) some foresight about alternative courses of action, intuitive as well as rational; (2) a knowledge and partial imitation of the policies of successful others; and (3) the elimination or reduction in number and importance of those least successful in the choice of their policies, provided the analysis covers large numbers and a sufficiently long period of time.

knowledge in certain positions, and this development, which is more important as more knowledge is used in actual operations, has similar consequences. Those in positions of power become dependent on specialists who are much harder to control than those whose work is open to common-sense evaluation.

Broadly, one can distinguish three outcomes of this dilemma. First, the rulers may shy away from a further division of labor and organization because of the problems indicated, or they may fail in their attempts to cope with them and lose much of their power. Since their power was the aggregating factor on the basis of which further differentiation became possible, the latter alternative would most likely also arrest the process of differentiation. The repeated centrifugal tendencies of European feudalism may serve as a well-known example of such an arrest of structural differentiation. Any systematic investigation of the history of business firms, especially in the early phases of modern economies, would probably turn up many illustrations of an unwillingness to engage in a division of authority.<sup>11</sup>

Second, the ruler may be able to cope with the problems of control by a variety of complex additional arrangements of supervision and discipline. If we take the government of 18th-century Prussia as a case in point, these measures include the establishment of collegial authority, which diffused responsibility but allowed for multiple lines of information to the center and for mutual control, the development of a bureaucracy paralleling others with a primary task of spying, inspection, and control, and the recruitment of certain officers with an eye as much to loyalty as to ability and expertise. As quite costly arrangements, these measures can weigh heavily on the negative side of an efficiency analysis, but

<sup>11</sup> One component of the famous argument that French family firms contributed to a retardation of the French economy (see Landes 1951; for a skeptical view, see Kindelberger 1963) revolves around the desire for family control. The controversy surrounding this thesis concerns the long-term stability of behavior patterns of family firms and their effects on economic retardation; less in question is the fact that for a long period problems of control restrained growth and division of authority. Less well known are similar findings about West African entrepreneurs (Garlick 1971, p. 139; Kilby 1965, pp. 85 f., 101, 111, can be interpreted along the same lines). To add one more example to the list, an unwillingness to risk changes in traditional relations and in the structure of power, which outweighs fairly obvious advantages for productivity, seems the key to an explanation of the economic inefficiencies of Latin American latifundia run by absentee landlords and administrators of very limited competence (Feder 1971, p. 87 f.; see also Barraclough 1973). A variant that leads into the next category of outcomes of the control dilemma is provided by the cases in which subordinates prove able to cope with such control problems and by doing so gain a position of power of such character that, in the extreme, they replace the original ruler. Of greater consequence than such simple displacement are developments in which a corps of top subordinates gains power in a similar way at the expense of the ruler without displacing him. For an excellent case study, see Rosenberg (1958). Such a development can in several ways overlap the next two outcomes discussed.

they did answer problems of central direction and control created by increasing division of labor and organization (see Smith 1972).

Third, the corps of relevant officers may develop attitudes and value commitments consonant with the interests and responsive to the wishes of those in top positions. Normally this requires cultural developments which over a long period of time remain consistent with the interests of rule by divided authority and which forge tenets of legitimation acceptable to both rulers and officials. These cultural developments have to be complemented by generous rewards of income, status, or both. According to Max Weber's well-known analysis, access to these rewards must remain under the control of the center lest the subordinates create their own independent power centers.

The first two outcomes of the control dilemma created by the division of authority and the increased use of experts indicate important obstacles in the process of differentiation as well as some ways in which these may be overcome by rulers who command sufficient resources. The third possibility identifies a crucial *breakthrough* in the emergence of a modern social order. The early developments of this kind involved secular changes; both in time and in social scope, they reached far beyond the horizon of even the most powerful and far-sighted actors. Subsequent developments, taking place within a transformed sociocultural environment, can rely on already existing patterns of attitude and value commitment which may ease, and in the extreme even eliminate, the dilemmas engendered by a division of authority.

To understand more fully the conditions which bring about such fundamental transformations, much more research and analysis is required—research of the historical-sociological variety exemplified by the work of Weber and Eisenstadt—rather than general formulations about evolutionary stages which gloss over the actual processes of change. There is, incidentally, reason to think that transformations of the ethos of administrative officials tend to be much more limited in their effects than some formulations about the modernization of public and private administration suggest. The formal readiness to serve loyally in a system of divided authority seems in most instances bound up with some substantive ideals, aversions, and taboos, which are deeply grounded in the outlook of officials and which limit the range of policies given unreserved support in a specific service subculture. It is for this reason that we find complex control arrangements, similar to those of the 18th-century Prussian state, in such modern societies as Germany under the National Socialist regime (Burin 1952) and the socialist states of Central and Eastern Europe after the Second World War (Fainsod 1963; Beck 1963). The conflict between the habits, outlook, and value commitments of the established corps of



civil servants and the goals of the new political elites gave rise to the underlying problems of control and direction.

Obstacles to the advance of specialization and differentiation within the administration of rules do not derive only from contradictory interests of the power holders. Resistance against differentiation is likely to come from officials and organizations who have some share of power and whose jurisdiction would be subdivided. Their resistance will intensify as further differentiation infringes on their economic privileges and on their status in society. Their resistance will be reinforced by commitments to certain policies and values for which they claim a special responsibility. Similarly, a division of roles and organizations will be favored by those who thereby gain in privilege, status, or power, which they may or may not exercise with claims of a wider responsibility. The ultimate result of such contradictions between vested interests will depend largely on the power resources of the opposing factions and on the interests and the power resources of higher-level decision makers. This suggests that specialization in an organization, once those in authority decide it is to their advantage, is likely to proceed more smoothly the lower the rank of those affected, because opposition is less likely to be powerful.

Another conclusion of some importance is that where opposition to differentiation from vested interests in established organizations is considerable, more complex organizational forms may develop more easily in new organizations than through the transformation of existing ones. Later the old organizational forms may be gradually eliminated, be it by decree or as a result of competitive pressure. However, they also may succeed in surviving under certain and not necessarily rare conditions; this results in the not unfamiliar picture of a coexistence of several different organizational forms with the character of each testifying to the conditions that shaped its development (see, for instance, Stinchcombe 1965). Either outcome is incompatible with naive conceptions of differentiation according to which more complex social patterns evolve directly and smoothly out of simpler ones.

We now turn to the second problem area identified above, which concerns the adverse effects that differentiation potentially has on the authority of rulers outside their immediate organizations of domination.

S. N. Eisenstadt, who—following Max Weber—has done much to advance the analysis of the problems discussed so far, has also provided a succinct formulation of the central issues involved in the potential erosion of the ruler's authority in the wider society due to advances of structural differentiation (Eisenstadt 1963). Since differentiation requires a freeing of resources and people from uses and role assignments fixated by tradition, and since many specialized positions gain in the process of dif-

ferentiation some autonomy from direct control, the specialization of urban groups and the related expansion of market exchange tend to undermine ascriptive, "traditional" authority. At the same time, such developments are necessary to advance the more efficient forms of bureaucratic rule. A ruler whose power in the wider society rests to an important extent on ascriptive fixations and traditional consent thus finds himself in a dilemma if he seeks to expand his power through bureaucratic centralism. How this dilemma is resolved depends to a large extent on coalitions and compromises with old and new subdominant groups. There are in particular the old aristocracy and urban strata of new importance; their interests fall primarily on opposite sides of the dilemma and their support can be used, respectively, to compensate for erosions of old foundations of the ruler's power or to develop new bases of power and legitimation more consonant with bureaucratic rule.<sup>12</sup>

Eisenstadt's analysis deals with early forms of bureaucratization. While certain features of these developments have universal significance, it is important to keep in mind that the problems encountered here are transitory ones in a longer term perspective. Not only are the principles of authority and legitimation less heterogeneous and contradictory in more modernized societies, but also the modern institutional structure offers—with general legal norms, enacted law and formalized adjudication, and with such legal forms as contract, property, and corporation—a firmly established and widely accepted framework in which individuals and collectivities can gain and lose power, or set up organizational forms and recompose them, without having to secure anew in each case the necessary foundation of power and justification in the wider society. Here, as in the complementary case of the development of a modern service ethos among officials, what are needed are historical-sociological process analyses which clarify how a sociocultural environment that is favorable to such building and restructuring of organizations has developed under varying conditions. The present state of knowledge suggests that the con-

<sup>12</sup> This line of argument focuses on problems of legitimation. Another problem derives from the interdependence engendered by increased differentiation. If such interdependencies extend beyond a sphere of power, important resources may come under partial control of actual or potential opponents. Whether under these conditions those in charge will opt for self-sufficiency, and thus a limitation on certain advances of differentiation, depends—aside from problems of foresight and other factors—on their assessment of the likelihood of conflict and on the amount of control a likely enemy or coalition of enemies is seen as gaining. A closely related problem concerns the cultural and ideological exchanges associated with structural differentiation. The interdependencies created by differentiation often become also channels for the flow of ideas. To the extent that power holders see their power endangered by such diffusion or that they value the maintenance of certain cultural orientations as an end in itself, they may seek to limit differentiation in order to limit the reception of foreign cultural elements. The radical isolationist policies of Tokugawa Japan and the more complex but basically similar policies of socialist societies in Eastern Europe may serve as examples.

centration of power that was a condition and a further consequence of the bureaucratization of political rule was of paramount importance in initiating and establishing these more pervasive changes (Eisenstadt 1963; Parsons 1964).

#### IV

Karl Marx distinguished between the "division of labor in manufacture," or more generally differentiation within organizational complexes under a single authority, and "division of labor in society," or specialization of autonomous social units relative to each other.<sup>13</sup> This distinction has important implications concerning the type of change involved. Differentiation within the jurisdiction of a single authority more often takes the form of directed rather than unplanned, "crescive" change and is probably more amenable to a conclusive and determinate analysis than differentiation that grows out of the interaction between autonomous units.

One might be tempted to extend this insight and argue that, while power variables may play a significant role in the "division of labor in manufacture" and its noneconomic equivalents, the "division of labor in society" is subject to different forces, forces that transcend the resources and interests of the particular authorities and privileged strata of a society. I shall argue that this view is mistaken and derives from conceptions of economic competition as a natural state relative to which political regulation and economic policy are artificial, unjust, and ultimately ineffective. Aside from this fundamental criticism it is worthwhile to note here that the "division of labor in society" and, more generally, the specialization of autonomous social units relative to each other cover a much wider range of phenomena than competition among a large number of equals. There may be many units involved, or as few as two, and the distribution of power—among the units potentially involved in differentiation as well as among social positions and organizations in general—can vary from a very strong concentration to a near-equal dispersion. Clearly the direct role of power variables in processes of differentiation is likely to be greater if only a few units are involved and if the concentration of power reaches a high level.

<sup>13</sup> Marx's argument insisting on this distinction is worth recalling: 'The same bourgeois mind which praises division of labor in the workshop, lifelong annexation of the laborer to a partial operation, and his complete subjection to capital, as being an organization of labor that increases its productiveness—that same bourgeois mind denounces with equal vigor every conscious attempt to socially control and regulate the process of production, as an inroad upon such sacred things as the rights of property, freedom and unrestricted play for the bent of the individual capitalist. It is very characteristic that the enthusiastic apologists of the factory system have nothing more damning to urge against a general organization of the labor of society, than that it would turn all society into one immense factory' (Marx [1867] 1959, p. 356).

Perhaps the most dramatic case of differentiation due to power struggles between relatively autonomous interests is the "separation of powers" in modern government. At least in its democratic variant, this did not come about because of a drive toward greater efficiency of administration, adjudication, and legislation, but rather because of attempts to limit the power of the crown. The balance of power between crown and other groups was also at stake in instances where a "separation of powers" was imposed from above. Thus, when the Prussian kings took administrative tasks away from the *Regierungen*, organizational strongholds of the Junkers, and narrowed their function to judicial tasks, they moved in the direction of a structural differentiation of governmental functions and at the same time gained important power advantages over their conservative opponents (see Rosenberg 1958, esp. p. 55; Wagner 1936).

One may wonder why similar developments should come about as the result of very different power interests. Is it possible that the *lines* of differentiation—delimiting which functional problems are structurally separated from others—follow more universal exigencies, while power interests determine only whether or not a given process of differentiation takes place? I doubt that such a distinction is very useful. For the developments under discussion one might argue that they constitute a differentiation of decision-making processes with the rationale of separating concerns the vigorous pursuit of which may interfere with each other—an application of the general principle of which the legal treatment of "conflict of interest" is also a special case. The argument is reasonable enough; in fact, it formulates a point that perhaps should be included in the list of potential efficiency advantages developed earlier. Yet, as with all efficiency advantages, one must ask here too, "efficient" in terms of whose interests? The absolute king, his top administrators, civil servants in the offices affected, and citizens in various relations to the royal administration had most likely quite different ideas about the incompatibility of various tasks of decision making, and these differences were rooted in divergent interests. It would be foolish to rule out the possibility that different interests may on occasion lead to similar, partially identical results, but the controlling proposition remains that this is not to be taken for granted. To return to the Prussian example, one may want to remember that in another aspect of the separation of powers, the separation of legislative powers from administration, the crown was extremely reluctant to make concessions, and a full separation came about only in 1919 after the demise of the monarchy.

The "separation of powers" in government does not stand alone; it is an instance of a more general phenomenon. The delineation of the "jurisdiction" of large institutional complexes inevitably raises questions of power, especially if control over crucial resources is at stake and if the organizations and institutions in question command general influence and

moral authority. In modernizing societies, struggles about the role of church, working-class organizations, or universities provide cases in point. In these matters of organizational and institutional differentiation there does not seem to exist any simple trend toward narrower specialization. In fact the later discussion of de-differentiation will concentrate on similar and related problems.

Political struggles about the jurisdiction and tasks of such institutions as church and universities involve centers of power and influence, which are different from each other in functional character. This suggests the complementary question, which indicates a concern that was central to the classic discussions of the division of labor: What are the effects on differentiation of conflicts between functionally similar units, for instance, between two or more political sovereignties or between business firms? One outcome is that a party loses its autonomy and becomes a part of the winner's organization, possibly with a more specialized task. Changes in the role of the aristocracy and its institutional strongholds at times when strong rulers succeeded in imposing bureaucratic centralism provide a variety of examples for such imposed specialization; it is also a common result of competition among business firms, especially under oligopolistic and quasi-monopolistic market conditions. Another outcome, of special importance for the economy, is organizational specialization in order to avoid direct confrontation and possible defeat; product specialization reduces the intensity of competition. Both outcomes played an important role in Durkheim's analysis of differentiation (Durkheim [1893] 1964).

While such fights are under way, and especially if they are waged between organizations of comparable strength and therefore extend over long periods of time, competitive pressures increase tendencies to look for the most efficient forms of internal division of labor, most efficient in terms of gaining a competitive advantage or at least holding one's own in the market. These effects on the internal division of labor of organizations would presumably be stronger as competition approached more closely that construct of the economic imagination, "perfect competition."

Competition that approaches the pure type of perfect competition differs from the forms of political and economic struggle discussed so far, because the intent to reduce the power of competitors or to displace them altogether is minimized. The number of competitors is too large for such attempts to be worthwhile. The model of perfect competition is of special importance for the central problem of this essay, the interaction between structures of power and processes of differentiation, because it was long advanced with the claim that here was a combination of order and progress that could function without help from the powerful.<sup>14</sup> An ideo-

<sup>14</sup> It may be noted in passing that the claims made for the efficiency effects of competition pose a challenge for the conventional efficiency theory of differentiation, since by

logical descendant of the tradition of natural law, this classic conception of competition as the "natural" state of affairs, relative to which intervention and planning by the state and by monopolistic power holders are "artificial," still has some currency.

Yet on reflection it is abundantly clear that various elements of power play an important role even in situations approaching perfect competition. There is first the power of entrepreneurs and executives over their subordinates in a firm. There are differential opportunities for entry into a given market, variously based on factual, customary, and legal requirements regarding capital, education, social affiliation, or age and sex. There is the power of the state undergirding the legal framework which regulates relations among competitors, as well as between suppliers and customers, entrepreneurs and workers; this set of binding norms and optional contractual forms is never completely neutral with respect to the various interests involved, even if such neutrality is intended. Finally, there are often policies, instigated and opposed by different interests and pursued by governmental power, that aim directly to affect the pattern of competition—to maintain it in a certain form, to limit its intensity, or to keep imperfections of competition from having undesired results; modern anti-trust legislation and medieval guild regulations, which limited the range of production and the number of employees allowed in a single shop, are but two well-known examples of such policies.

It is not, then, the absence of power or of power constellations favoring special interests that distinguishes situations in which many participants of roughly similar strength compete with each other. What is characteristic, however, is a peculiar pattern of resultant change, in the division of labor as in other respects—crescive rather than abrupt and discontinuous change, change less subject to autonomous planned direction by any of the participants and more determined by "mechanisms" that are rooted ultimately in the conditions of the man-made and natural environment no single participant can affect much. It was these mechanisms that gave rise to the classic image of the "invisible hand." Yet as modern economic policymakers in capitalist countries have learned, however imperfectly, such processes of crescive, aggregate change can be influenced, and even steered, if one controls certain points of leverage.

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definition competing units are not, relative to each other, specialized in complementary ways, but deal, "segmentally" separated, with similar goals. The problem raised complements Marx's polemic quoted in the preceding note. If one were to pursue the efficiency theory of differentiation, one would have to compare the efficiency results of competition, based on such factors as the mobilizing effects of the pursuit of self-interest or the peculiar combination of information and authority characteristic of decentralization, with the efficiency effects of further structural differentiation under varied circumstances in order to arrive at an explanation of differentiation based on efficiency consequences.

Occupational specialization, the central theme of the early discussions of the division of labor, has often been analyzed as a variant of decentralized, competitive change. Here, too, the prevailing conceptions have neglected the part played by organized interests, power, regulation, and planning and emphasized impersonal socioeconomic mechanisms which respond to changes in the scope of markets, in technology, and in the environment. The foregoing arguments regarding the role of power even in markets approaching perfect competition apply here too; in addition, labor markets are rarely models of competition on both sides of demand and supply.

If workers are employed and not well organized, the level and types of specialization will be determined by the economic and organizational interests of their employers. Unions and occupational associations exert an influence that varies with their power resources, but that can by no means be dismissed as a mere modification or retardation of ineluctable trends. The higher the class and status position of the members of an occupation, the stronger this influence will be—other things, especially the degree and efficiency of their organizations, being equal. For this reason, specialization in a profession reflects more closely conditions and interests within the occupational group than it does in lower ranking occupations. There is no space here to explore which interests in an occupation are likely to favor, which to oppose, further specialization. Generally, a reliable guide to prediction can be derived from analyzing the perceived impact of pending specialization on the competitive advantage, on income, status, and influence of different subgroups in the occupation. Government regulation often serves as an instrument to protect and advance the interests of certain occupational groups in a pattern of specialization. In many, if not in most, instances of a breakdown of complex craft skills into simpler unskilled or semiskilled components, changes in the legal order were an important contributing cause rather than merely a formal acknowledgment of more fundamental developments.<sup>15</sup>

## V

Earlier I suggested that a consideration of developments of de-differentiation might be helpful in overcoming the diffuse and largely descriptive character of many analyses of structural differentiation and that it may aid in approaching a process analysis of these changes. De-differentiation in the most literal sense is the reversal of a process of differentiation and

<sup>15</sup> The role of power in shaping the place and functions of the professions in society, including their internal differentiation and their relations to other occupations, has recently received more attention (see Bucher and Strauss 1961; Rueschemeyer 1964; Freidson 1970a, 1970b; Johnson 1972; Rueschemeyer 1973).



a return to the *status quo ante* or, since history rarely can be turned back exactly, a situation similar in its basic outline. In the preceding discussions various obstacles and sources of resistance to developments of differentiation were identified; they constitute the main causes of de-differentiation in the literal sense if a new division of labor and organization does not become firmly institutionalized and the balance of power tilts toward the opponents of the development in question.

Of greater theoretic interest is another form of de-differentiation, which perhaps might better be called a "structural fusion of functions." Here we do not deal with a return to the original pattern, and thus the original constellation of interests favoring or opposing the development in question becomes irrelevant.<sup>16</sup>

If students and professors try to commit their university to a certain political position, we have—in the institutional context of the United States or Western Europe—a clear, though minor, example of an attempt at organizational de-differentiation. The underlying pattern is fairly general. Various specialized institutions are strongholds for certain opinions and concerns of a wider significance. If critical developments intensify these concerns the attempt may be made to mobilize the resources of the specialized institution for broader, here political purposes. Recent developments of UNESCO policy, political and moral pronouncements of scholarly societies beyond their immediate sphere of technical competence, the inclusion of political aims in the program of unions that previously had a narrow "business" orientation, and "political" strikes can all be subsumed under this type. Often such moves toward de-differentiation will be temporary phenomena only or minimally successful in the first place, because powerful interests are served by the specific delineation of the "proper" functions of most important institutions in stable societies. Furthermore, other interests with no direct stake in the dispute in question are often, through various mutual accommodations, committed to the existing pattern, too. This is particularly likely if an entry of previously nonpolitical organizations into the arena of broad political decision making is at issue. "Cobbler, stick to your last" is a demobilizing injunction. It takes a considerable exercise of power sustained over a long period of time to bring about such de-differentiations and make them stick. Still, a cer-

<sup>16</sup> Before I proceed further, it seems useful to touch briefly on certain conceptual difficulties. It may be objected that a fusion of functions, especially at the level of control and coordination, should not be considered as a process of de-differentiation, but should rather be analyzed as a form of integration. However, the seeming contradiction is resolved once it is realized that differentiation and integration are logically heterogeneous concepts, the former being a concept of structure, the latter indicating a functional problem. Thus, integrative problems may be solved, under different circumstances, by newly specialized roles and organizations as well as by a structural fusion of functions in one role or organization.

tain amount of tug and pull over the purposes of many institutions should be expected in all societies.

Another type of fusion of functions in certain organizations is also rooted in attempts to marshal additional power resources for broad purposes. Here a political, ideological, or religious organization seeks to secure the allegiance of its adherents and to broaden its following by offering intrinsically nonpolitical, nonideological, and nonreligious services and opportunities for association of various kinds. Missionary schools and hospitals, religious or political fraternal associations, as well as hiking, gardening, or singing clubs under denominational or party sponsorship represent an assortment of examples.<sup>17</sup> That developments of this kind often proceed with much greater ease, provided the potential clientele is willing and interested, highlights by comparison what was said about the obstacles encountered by attempts of previously nonpolitical organizations to move into the political arena of power. In the present case, the organizations are already established in that arena, and their expansion of activities is often not easily interdicted. On the other hand, great resources of power and coercion may be needed if the potential clientele is unwilling or if their interests are already served under the sponsorship of competing institutions. One might look from this perspective at the introduction of compulsory education under the sponsorship of the modern state in continental Europe, or at the imposition of ideological party auspices on most organized activities in 20th-century totalitarian states.

Certain forms of de-differentiation at the level of control and direction may be of strategic importance for large-scale and thorough transformations of a social order. Totalitarian control and penetration of all spheres of life is only one of these forms, one that is of particular importance in relatively developed societies where many people are potential political actors and where advanced structural differentiation makes centralized elite control difficult without pervasive indoctrination and control of commitment. In less developed societies the fusion of different functional elites and the concentration of their efforts on certain goals of social change may be sufficient to create a similar potential for rapid and thorough institutional change.

In either case, one particular fusion of functions, or at least a very close integration, seems of special importance—the linkage of “managerial” policy concerns with new value orientations and ideological guidance; the insistence in Mao’s China on not letting the concepts of “red” and “expert”

<sup>17</sup> The latter types of associations were characteristic of the “political culture” of Germany before and after the First World War; see for instance Roth (1963). Similar patterns were found in the Netherlands after the Second World War (see Lijphart 1968). For an analysis of the general rationale of this type of fusion of functions see Olson (1965).

drift apart is a powerful example. Social change that involves such a reduction of differentiation and complex mediation between concerns of ultimate orientation and the more "realistic" preoccupations with running the machinery of society might be called charismatic change, borrowing from Weber's conception of charismatic authority (Weber [1921] 1968; see also Shils 1965 and Eisenstadt 1968). In analogy to Weber's theorems about the routinization of charisma, one should then expect that such processes of fusion of functions are followed later by new developments of structural differentiation, though their results are likely to be of a nature different from the social structure preceding the change.

## VI

I have argued for an inclusion of power in the conceptual frameworks used to deal with structural differentiation of functions. First, the prevailing functional arguments that efficiency advantages underlie long-term advances of differentiation remain indeterminate without such an inclusion, because efficiency is always bound up with specific preference structures and the power resources of the actors variously affected by differentiation are thus a crucial element in the causal loops that give the functional argument explanatory power. Second, whether or not efficiency advantages have a central place in the explanatory model, the differential power resources and the power interests of the various relevant individuals and groups are likely to be of strategic importance for the immediate causal constellations underlying actual processes of differentiation and de-differentiation.

Taking off from these considerations, I have first reviewed the problems and dilemmas arising for power holders if they engage in policies encouraging structural differentiation within their immediate and wider spheres of authority; some of the conditions under which these contradictions between power interests and differentiation advantages are reduced were also discussed. A second set of arguments dealt with the consequences for differentiation that result from conflict, rivalry, and competition between more or less autonomous organizational units; the special case of competition which approaches the pure type of perfect competition was related to underlying patterns of power and to the resulting pressures for differentiation. Finally, various types of de-differentiation, or structural fusion of functions, were analyzed in relation to power interests; a tentative inference is that certain forms of such fusion are of strategic importance for far-reaching transformations of a social order.

The material discussed was varied indeed—a reflection of the abstract nature of the two central concepts, structural differentiation and power.

While I have referred primarily to the more narrowly defined phenomenon of organized domination rather than to power in general and have indicated at several points how the concept of differentiation should be subjected to differentiation itself, it is clear that further conceptual distinctions will become increasingly important in future work in this area. Yet it is well to remember that conceptual differentiations should not run much ahead of the substantive development of theory; and if theoretical conceptions cut through the compartmentalization of phenomena in their concrete social definitions and thus transcend the parochialism of common sense, one should treasure that as a gain of, and for, theoretical analysis—provided the concepts identify phenomena which are indeed similar in regard to causal conditions and consequences.

The aim of this essay was to demonstrate the theoretical utility of looking at power constellations and power interests as one important set of proximate causes involved in processes of differentiation and de-differentiation or fusion of functions. This must not be misunderstood as an assertion that power interests constitute the primary cause of differentiation and de-differentiation in all their variety. Power and domination rest on a very broad range of conditions and are used to pursue many different goals. If these conditions and goals are subjected to causal study, it seems plausible in any long-term analysis to expect the greatest impact from the same causal complexes that have been viewed in the past as major determinants of long-run structural change—population change, developments of technology and economic structure, changes in the basic value orientations and cognitive premises of sociocultural life. The exercise of power and domination and the interests it engenders, while constituting a dimension that may very well have some causal autonomy even in the long run, in large part merely reflect changes in other aspects of society and culture. I consider the separation of the dimension of power from the structure of productive relations a strategic mistake of Dahrendorf's (1959) attempt to reorient the Marxian analysis of class and class conflict; to view power in isolation from other major causal complexes would be a similarly consequential error in the theory of differentiation. What I do argue is that power constellations and power interests are of eminent importance as proximate causes in actual processes of differentiation and de-differentiation and that process analyses of both types of structural change should be given high priority in theoretical work in this area.

## REFERENCES

- Arrow, Kenneth J. 1951. *Social Choice and Individual Values*. New York: Wiley.  
Barracough, Solon L., ed. 1973. *Agrarian Structure in Latin America*. Lexington, Mass.: Lexington.

## American Journal of Sociology

- Beck, Carl. 1963. "Bureaucracy and Political Development in Eastern Europe." Pp. 268-300 in *Bureaucracy and Political Development*, edited by J. LaPalombara. Princeton, N.J.: Princeton University Press.
- Bucher, Rue, and Anselm Strauss. 1961. "Professions in Process." *American Journal of Sociology* 66, no. 4 (January): 325-34.
- Burin, Frederic S. 1952. "Bureaucracy and National Socialism: A Reconsideration of Weberian Theory." Pp. 33-47 in *Reader in Bureaucracy*, edited by R. K. Merton, A. P. Gray, B. Hockey, and H. C. Selvin. Glencoe, Ill.: Free Press.
- Dahrendorf, Ralf. 1959. *Class and Class Conflict in Industrial Society*. Stanford, Calif.: Stanford University Press.
- Durkheim, Émile. (1893) 1964. *The Division of Labor*. New York: Free Press.
- Eisenstadt, S. N. 1963. *The Political System of Empires*. New York: Free Press.
- . 1964. "Social Change, Differentiation and Evolution." *American Sociological Review* 29, no. 3 (June): 375-86.
- . 1968. "Introduction." Pp. v-lvi in *Max Weber on Charisma and Institution-Building*, edited by S. N. Eisenstadt. Chicago: University of Chicago Press.
- Fainsod, Merle. 1963. "Bureaucracy and Modernization: The Russian and Soviet Case." Pp. 233-67 in *Bureaucracy and Political Development*, edited by J. LaPalombara. Princeton, N.J.: Princeton University Press.
- Feder, Ernest. 1971. *The Rape of the Peasantry: Latin America's Landholding System*. Garden City, N.J.: Anchor.
- Freidson, Eliot. 1970a. *Profession of Medicine: A Study of the Sociology of Applied Knowledge*. New York: Dodd, Mead.
- . 1970b. *Professional Dominance: The Social Structure of Medical Care*. New York: Atherton.
- Garlick, Peter C. 1971. *African Traders and Economic Development in Ghana*. Oxford: Clarendon.
- Goode, William J. 1967. "The Protection of the Inept." *American Sociological Review* 32, no. 1 (February): 5-19.
- Johnson, Terence J. 1972. *Professions and Power*. London: Macmillan.
- Kilby, Peter. 1965. *African Enterprise: The Nigerian Bread Industry*. Stanford, Calif.: Hoover Institution.
- Kindleberger, Charles P. 1963. "The Postwar Resurgence of the French Economy." Pp. 118-58 in *In Search of France*, edited by Stanley Hoffmann. Cambridge, Mass.: Harvard University Press.
- Landes, David S. 1951. "French Business and the Businessman: A Social and Cultural Analysis." Pp. 334-53 in *Modern France*, edited by E. M. Earle. Princeton, N.J.: Princeton University Press.
- Lenski, Gerhard E. 1966. *Power and Privilege*. New York: McGraw-Hill.
- Lijphart, Arend. 1968. *The Politics of Accommodation*. Berkeley: University of California Press.
- Marx, Karl. (1867) 1959. *Capital*, vol. 1. Moscow: Foreign Languages.
- Mishan, E. J. 1968. "Welfare Economics." Pp. 504-12 in *International Encyclopedia of the Social Sciences*, edited by David L. Sills. New York: Macmillan and Free Press.
- Olson, Mancur. 1965. *The Logic of Collective Action. Public Good: and the Theory of Groups*. Cambridge, Mass.: Harvard University Press.
- Parsons, Talcott. 1937. *The Structure of Social Action*. New York: McGraw-Hill.
- . 1961. "Some Considerations on the Theory of Social Change." *Rural Sociology* 26 (September): 219-39.
- . 1964. "Evolutionary Universals in Society." *American Sociological Review* 29, no. 3 (June): 339-57.
- . 1966. *Societies: Evolutionary and Comparative Perspectives*. Englewood Cliffs, N.J.: Prentice-Hall.
- . 1971. "Comparative Studies and Evolutionary Change." Pp. 97-139 in *Comparative Methods in Sociology*, edited by Ivan Vallier. Berkeley: University of California Press.

## Structural Differentiation

- Rosenberg, Hans. 1958. *Bureaucracy, Aristocracy and Autocracy: The Prussian Experience (1660-1815)*. Cambridge, Mass.: Harvard University Press.
- Roth, Guenther H. 1963. *The Social Democrats of Imperial Germany*. Totowa, N.J.: Bedminster.
- Rueschemeyer, Dietrich. 1964. "Doctors and Lawyers: A Comment on the Theory of the Professions." *Canadian Review of Sociology and Anthropology* 1, no. 1 (February): 17-30.
- . 1973. *Lawyers and Their Society: A Comparative Study of the Legal Profession in Germany and in the United States*. Cambridge, Mass.: Harvard University Press.
- . 1974. "Reflections on Structural Differentiation." *Zeitschrift für Soziologie* 3, no. 3 (June): 279-94.
- Shils, Edward A. 1965. "Charisma, Order and Status." *American Sociological Review* 30, no. 2 (April): 199-213.
- Smelser, Neil J. 1959. *Social Change in the Industrial Revolution*. Chicago: University of Chicago Press.
- . 1963. "Mechanisms of Change and Adjustments to Change." Pp. 32-54 in *Industrialization and Society*, edited by B. F. Hoselitz and W. E. Moore. Paris and The Hague: UNESCO and Mouton.
- Smith, Michael R. 1972. "Modernization and Bureaucratic Rationality: The Prussian Case." Master's thesis, Brown University.
- Stinchcombe, Arthur L. 1965. "Social Structure and Organizations." Pp. 142-93 in *Handbook of Organizations*, edited by J. G. March. Chicago: Rand McNally.
- Wagner, Albrecht. 1936. *Der Kampf der Justiz gegen die Verwaltung in Preussen*. Hamburg: Hanseatische Verlagsanstalt.
- Weber, Max (1921) 1968. *Economy and Society*, edited by Guenther Roth and Claus Wittich. New York: Bedminster.

# A Macrosociological Theory of Social Structure<sup>1</sup>

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Social structure is conceptualized as the distributions of a population among social positions in a multidimensional space of positions. This quantitative conception of social structure is the basis for a deductive theory of the macrostructure of social associations in society. The likelihood that people engage in intergroup associations under specifiable structural conditions can be deduced from analytic propositions about structural properties without any assumption about sociopsychological dispositions to establish intergroup associations, indeed, on the assumption that people prefer ingroup relations. Group size governs the probability of intergroup relations, a fact that has paradoxical implications for discrimination by a majority against a minority. Inequality impedes and heterogeneity promotes intergroup relations. The major structural condition that governs intergroup relations is the degree of connection of parameters. Intersecting parameters exert structural constraints to participate in intergroup relations; consolidated parameters impede them. The more differentiation of any kind penetrates into the substructures of society, the greater is the probability that extensive social relations integrate various segments in society.

This paper presents a deductive theory of the structure of social associations, which rests on a quantitative conception of social structure. It is inspired by Simmel (1908), the father of quantitative sociology. To be sure, Simmel did not employ quantitative methods in his work. But by quantitative sociology I mean a subject matter, not the procedures used in investigating it. Quantitative sociology is the conceptual and theoretical analysis of the quantitative dimension of social life—of the implications of the numbers and distributions of people for their social relations—and in this Simmel was a pioneer. The conception of social structure adopted is also akin to that of the British structuralists in anthropology, notably Radcliffe-Brown (1940), Evans-Pritchard (1940), and Nadel (1957), except that their concepts pertaining to the structure of small tribes are adapted to make them applicable to the macrosociological study of large societies as well.

The analysis to be presented may be described as a primitive theory of social structure, in two senses of the term. First, it is a deductive theory,

<sup>1</sup> I am grateful to Ralph Bulle and Hilary Silver for bibliographical assistance and helpful comments.



in which theorems are derived from axioms or primitive propositions that logically imply them. These axioms are either analytic propositions, which are true by definition and refer to the way social structure is defined, or synthetic propositions, which are assumed to be true and rest on simple, plausible, and testable assumptions, for example, that social associations depend on opportunities for contact. Second, the theory is rooted in a primitive, rudimentary conception of social structure. The concept of social structure is confined to the distributions of people among different social positions. This is a very narrow view of social structure, which leaves out of consideration numerous broader implications and connotations of the term, such as value consensus, normative orientations, institutional systems, and functional interdependence. Not everything about social life can be explained in structural terms so narrowly conceived, but the endeavor here is to see how much can be.

### CONCEPTUAL FRAMEWORK

There are a variety of approaches to the study of social structure, and implicit in them are different ways of conceptualizing social structure. The focus may be on the class structure or value orientations, on networks of social relations or institutional integration, on the division of labor or the construction of social reality, on status sets and role sets or the ecosystem. Yet certain elemental properties of social structure are recognized by most social scientists, notwithstanding differences in approach and focus. Whatever else may be encompassed by social structure, it nearly always includes the concepts that there are differences in social positions, that there are social relations among these positions, and that people's positions and corresponding roles influence their social relations. Typically, however, theories of social structure extend the concept beyond these elemental properties. Thus, Marx explains the class structure and the conflicting relations between classes on the basis of the dialectical interplay of productive forces with productive relations. Although Parsons explicitly distinguishes structures of roles and social interaction, which constitute social systems, from patterns of values and meanings, which constitute cultural systems (Parsons and Shils 1951, pp. 20-26; Kroeber and Parsons 1958), his theoretical explanation of social relations and interaction is in terms of value orientations, that is, in cultural rather than structural terms, and he acknowledges that this makes him a "cultural determinist" (Parsons 1966, p. 113). Homans's (1961) deductive theory explains social interaction and role relations on the basis of psychological principles that govern human motivation.

In short, most social theories seek to explain the patterns of relations among people, which are constituent elements of social structure, in terms

that refer to realms outside the social structure, narrowly conceived, be they technological, economic, cultural, or psychological factors. The opposite approach is adopted here. Of course, there can be no doubt that technological and economic conditions, cultural values, and psychological motives influence human behavior and hence social relations. This is not at issue. Granted the existence of these influences, the question raised is what independent influences the structure of social positions in a society or community exerts on social relations.

### Macrostructure

Social structure is conceptualized narrowly as referring to the distributions of a population among different social positions that reflect and affect people's relations with one another. To speak of social structure is to speak of differentiation among people. For social structures, as conceptualized, are rooted in the social distinctions people make in their role relations and social associations. These social distinctions find expression in differences in roles and positions, which in turn influence subsequent social associations. But when the structure of an entire society or community is under consideration, persons naturally occupy several social positions simultaneously, not just one; they have occupations, belong to religious groups, live in communities, work in establishments, are more or less educated, and occupy socioeconomic statuses. A population distribution exists for each type of position.

Accordingly, the macrostructure of societies can be defined as a multi-dimensional space of social positions among which people are distributed and which affect their social relations: This abstract conception makes society's macrostructure homologous to the microstructures of role relations of individuals. In both cases, formal properties of social positions and relations are abstracted from their substantive contents, notably from cultural and psychological orientations. A fundamental difference, however, is the way in which social positions and relations are defined. Two important problems the macrosociological analysis of social structure must solve are how to deal with the huge number of personal relations in a society or community and how to take into account the multiple positions persons occupy, as Laumann (1973, pp. 2-7) notes.

Microstructures are the networks of interpersonal relations anchored in individuals, as illustrated by a sociogram of links between persons in a small group. Originating in the tradition of sociometry (Moreno 1934), microstructural inquiry has given rise to three main approaches: graph theory, network analysis, and block models. Graph theory (Harary, Norman, and Cartwright 1965; Davis 1967) uses psychological assumptions and mathematical principles to derive propositions about the configurations of links

that are most likely to develop. Network analysis (Barnes 1954, 1972; Mitchell 1969) dissects in detail the networks of person-to-person links in which specific individuals are involved, and the study of these microstructures anchored in individuals is explicitly juxtaposed to the macrosociological study of positions and groups in society represented by British structuralists in anthropology (Mitchell 1969, pp. 1-10). The block models constructed by White and his collaborators (White, Boorman, and Breiger 1976) divide a group into blocks of individuals with equivalent structural positions, defined on the basis of the similarity of the links of the persons in one block with those in others, which means that a block is not necessarily a subgroup of individuals who have direct links to one another. Whether microstructural studies center attention on direct links, as graph theory does, or not, like block models, they define the location of individuals in the social structure on the basis of an examination of all, potential as well as existing, person-to-person links. Such an analysis is not possible without modification for large collectivities. It is usually applied to groups of fewer than 100 persons, though procedures to apply it to groups of up to 1,000 persons have been developed (Coleman and MacRae 1960).

Macrostructural inquiry is concerned with the patterns of social relations among different social positions occupied by many persons, not with the networks of all relations between individuals. This requires redefinitions of two central concepts, position and relation, as Laumann and Pappi (1976, pp. 18-20) point out. Whereas microstructural studies define the positions of individuals in terms of the social relations in which they are involved, the definition of social position in macrostructural analysis is initially in terms of common or similar social attributes of people, such as their religion or socioeconomic status. The social relations between positions with many incumbents are not dichotomous links that either exist or do not exist but are defined as the variable likelihood or rate of association of incumbents of one position with those of another, for example, the rate of intermarriage or the frequency of intergroup contacts. Note that this macrostructural definition of social relations rests on actual associations between persons, as the microstructural definition does—except that a variable rate is substituted for a dichotomous link—which distinguishes the structural approach from theories that focus on the relations of functions, institutions, and values.

A crucial remaining problem is how to take account of the multiple positions people occupy. One strategy for dealing with this problem is to select one dimension of social positions, which is considered on a priori grounds to be of special importance, and to infer from the empirical analysis of observed social relations among these positions other dimensions that affect social relations. This is the strategy Laumann (1973, pp. 1-82)

adopts in one of the few systematic empirical studies of macrostructure. He selects religion, ethnic affiliation, and occupation as three types of important positions. For each, the data on friendships between positions are subjected to smallest-space analysis, the results of which indicate new dimensions of social differences that influence these friendship choices. For instance, the rates of friendships among occupational groups depend on differences in the socioeconomic status of occupations and, to a lesser extent, on differences between primarily bureaucratic and primarily entrepreneurial occupations.<sup>2</sup> A different strategy for dealing with multiple positions is to analyze how the extent to which various types of positions are correlated influences social relations, after having first examined how differences in positions of a single type influence them. This is the strategy adopted here.

### Structural Parameters

The structures of societies and communities are delineated by parameters (Blau 1974). Structural parameters are the axes in the multidimensional space of social positions among which the population is distributed. They are attributes of people that underlie the distinctions they themselves generally make in their social relations, such as age, race, education, and socioeconomic status. People can be classified on the basis of innumerable attributes, any of which may be a parameter. But if a classification made by an investigator does not influence social relations at all, or exerts only idiosyncratic influence on the personal relations of some individuals, it is not meaningful to consider it indicative of social positions. Hence, the double criterion of a parameter circumscribing social positions is that it is an attribute by which a population is classified and that the social relations among persons similarly classified differ on the average from the relations between persons in widely different categories. A typical difference, according to an assumption to be introduced, is that the social associations among incumbents of the same position or proximate ones are more prevalent than those between incumbents of different or distant positions. In short, a parameter is a variable that characterizes individuals and differentiates their role relations and social positions. At the same time, the distribution of the population among these positions yields a new variable that characterizes the degree of differentiation of the society in terms of the parameter. The focus of structural analysis is on the derived variables indicative of the degrees of differentiation of societies in various respects and on their implications for social life.

The two basic types of parameters are nominal and graduated param-

<sup>2</sup> Laumann (1973, pp. 111-30) also devises an ingenious procedure for the empirical study of the microstructures of interpersonal relations of individuals in a large city.

eters. A nominal parameter divides the population into subgroups with distinct boundaries and without an inherent rank order. Sex, religion, race, and place of residence are nominal parameters. A graduated parameter differentiates people in terms of a status rank order, which is in principle continuous, so that the parameter does not draw boundaries between strata. Income, wealth, education, and power are graduated parameters. The social positions delineated by nominal parameters are designated as group memberships, those delineated by graduated parameters as status. Hence, group and status are defined very broadly; for instance, females are a group and age is a status. Groups are not confined to collectivities all of whose members associate with one another, and status is not confined to differences in deference and compliance.

The two generic forms of differentiation, under which its specific forms can be subsumed, are heterogeneity and inequality. Heterogeneity refers to the population distribution in terms of a nominal parameter. The criterion of degree of heterogeneity is the probability that two randomly selected persons do not belong to the same group. For any nominal parameter, the larger the number of groups and the more evenly the population is divided among them, the greater is the heterogeneity. Thus, a community's ethnic heterogeneity is greater if there are many than if there are few ethnic groups; but it is not so great if most people belong to one ethnic group as it is if the population is more evenly divided among several. The criterion takes both components of heterogeneity into account.<sup>3</sup>

Inequality pertains to the population distribution in terms of a graduated parameter. The criterion of degree of inequality is the average difference in status between any two pairs relative to average status. For example, the more the average difference in years of schooling exceeds the average number of years of schooling in a society, the greater is the inequality in formal education. Another way of looking at inequality is that it refers to the extent to which a status resource is concentrated. For instance, the more the national wealth is concentrated in the hands of the richest persons, the greater the inequality in wealth is. It turns out that these two ways of conceptualizing inequality are actually equivalent, and they are indicated by the most widely used empirical measure of inequality, the Gini coefficient.<sup>4</sup> The former conception of inequality is meaning-

<sup>3</sup> The empirical measure of heterogeneity is the index proposed by Gibbs and Martin (1964):  $1 - [\sum x_i^2 / (\sum x_i)^2]$ , where  $x_i$  is the number of persons in a group and the sum is taken over all groups.

<sup>4</sup> A formula for the Gini index, which is equivalent to the one usually used for computing it, is:  $2\sum s_k p_i (p_j - p_k) / 2\sum s_i p_i$ , where  $s_i$  is the mean status in a category,  $p_i$  the fraction of the population in that category, and  $p_j$  and  $p_k$  the fractions of the population whose status is below ( $p_j$ ) and above ( $p_k$ ) that category, respectively, with the sum taken over all categories. The numerator is the (estimated) mean status difference between all pairs, and the denominator is twice the mean status of the population. I am

ful for any status criterion, even when the latter is not (which discloses that the Gini index is substantively appropriate for any status criterion). It is not very meaningful to speak of the degree of concentration of years of schooling, mathematical aptitudes, or intelligence, but it is meaningful to speak of the average difference in these characteristics.

Parameters are not orthogonal dimensions of social structure. On the contrary, their correlations are fundamental characteristics of macrostructures of primary interest in their analysis. The correlations of a nominal parameter with graduated ones indicate status differences among groups, for example, the differences in education and income among ethnic groups. Then one can examine how the status distance between groups affects the associations between their members.<sup>5</sup> If a nominal parameter with many categories is substantially correlated with graduated parameters, a new graduated parameter can be derived from the ranking of the categories. Thus, occupation is a nominal parameter, but classifying occupations by education and income yields an index of occupational status (Duncan 1961). Generally, the degree to which parameters intersect, or alternatively consolidate differences in social positions through their strong correlations, reflects the most important structural conditions in a society, which have crucial consequences for conflict (Coleman 1957) and for social integration.

Societies vary in the extent to which their structures are differentiated along various lines, and they also vary in the extent to which the different segments are integrated. Differentiation and integration are complementary concepts, and the definition of integration takes this into account. Both inequality and heterogeneity, the two forms of differentiation, are barriers to social intercourse, on the assumption that proximate status and common group membership promote social associations. If there were no connections among different social positions, however, these positions would not constitute elements of a single social structure. These connections that integrate the various segments of society are produced by the social associations between persons who occupy positions in different segments, in different groups or hierarchical strata. Society's integration is conceptual-

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grateful to Professor J. P. van de Geer, University of Leyden, for providing this formula and indicating its equivalence with the one usually used to compute the Gini index from the Lorenz curve.

<sup>5</sup> McFarland and Brown (1973) note that the concept of social distance has been used in two distinct ways: some, like Sorokin, use it to refer to differences in the attributes of persons, such as their occupation or income; others, like Bogardus, use it to refer to differences in social relations, such as rare marriages or disinclination to engage in social intercourse. Graduated parameters are indicative of status distance in the first sense, which is distinguished from rates of social association between incumbents of positions (social distance in the second sense). Laumann's (1973) dimensions indicate social distance in the second sense.

ized as resting on the actual social associations between persons in different segments, not on functional interdependence or common values, though these may contribute to integration by promoting social interaction between persons in different groups and strata. Although the assumption is that social associations are less extensive between persons in different social positions than among those in the same ones, high rates of associations among different groups and hierarchical strata are the criterion of macrosocial integration.<sup>6</sup> Dense networks of ingroup relations integrate individuals in their groups, but they threaten to fragment society, the integration of which depends on extensive intergroup relations.<sup>7</sup>

In accordance with this conception of social structure, the theory centers attention on its quantitative properties: the number of persons in different positions and the size of groups; frequency distributions among positions indicative of inequality or heterogeneity; whether various parameters are nearly orthogonal or highly correlated; the degree to which differentiation occurs within or among society's substructures; and how these structural conditions affect the rates of social association among groups and strata. Concern is with the implications for social life, not of the attributes of individuals, but of the distributions of their socially relevant attributes and the correlations of these distributions in society, which are considered the fundamental properties of social structure. Starting with propositions that employ simple concepts, like group size, the theory progresses to more complex terms derived from the simpler ones, such as heterogeneity, inequality, intersecting parameters, consolidation, penetrating differentiation. It is a theory of the influences of structural conditions, conceived narrowly and in quantitative terms, on social interaction, a theory of the structure of social association.<sup>8</sup>

### INTERGROUP RELATIONS

Given the significance attached to intergroup relations for society's integration, it is important to ask which groups have higher rates of intergroup associations than others and why they do. Is the rate of religious intermarriage higher for American Catholics or Protestants? Are inter-

<sup>6</sup> Society's social integration is a theoretical term not directly measured but reflected in the measured prevalence of social associations among different positions in terms of various specific parameters. Similarly, the structural complexity of society is an unmeasured theoretical term reflected in the degree of differentiation in terms of various specific parameters and the degree of intersection of these parameters.

<sup>7</sup> For ease of expression, the term "intergroup relations" is sometimes used, as here, to include relations among different strata as well as groups.

<sup>8</sup> It hardly needs saying that not all important aspects of social life can be considered in a brief paper. Thus, this paper does not deal with ingroup relations, with change, with conflict, but the fuller exposition of the theory does (Blau 1977).



racial friendships more prevalent among blacks or among whites? Do Jews or Christians spend more time, on the average, associating with members of the other religious group? To deal with a specific form of association: Are Catholics or Protestants more likely to engage in premarital sexual intercourse with members of the other group? Blacks or whites? Jews or Christians?

### Minority Groups

Empirical research could answer such questions, though it would be difficult to obtain reliable information for answering some of them, like the amount of time spent and the frequency of premarital intercourse. In any case, a hypothesis is needed to guide the research, or at least to interpret its findings concerning what properties of groups account for differences in extent of intergroup relations. A relevant hypothesis is derivable from Durkheim's (1951) theory that explains the lower suicide rates of Catholics and Jews than of Protestants on the basis of their stronger ingroup integration, which in turn is attributable to the deemphasis on individualism in Catholicism and Judaism and, in part, to position as a minority group. On the plausible assumption that strong ingroup bonds inhibit intergroup relations, one might infer that intergroup relations of various kinds are comparatively infrequent among Catholics and among Jews, and probably also among American blacks, owing to their being a minority. Other considerations lead to the opposite conclusion, however. Research indicates that the religious affiliations of Jews are less strong and have declined more than those of Protestants or Catholics (Lazerwitz 1961; Lenski 1961, pp. 44-53), which suggests that Jews are more likely than Christians to enter into interreligious marriages, and possibly premarital sex as well.<sup>9</sup> One might also conjecture, on the basis of admittedly quite limited empirical evidence, that premarital sex relations are more prevalent among blacks than whites (Sorenson 1973, pp. 172, 255) and more prevalent among Catholics than puritanical Protestants (Kinsey, Pomeroy, and Martin 1948, pp. 469, 472) and hence that such relations with the outgroup are correspondingly more prevalent among blacks and among Catholics.

Jews do have higher rates of premarital sex relations with the outgroup than Christians in the United States and in most western countries; blacks have higher rates than whites; Catholics have higher rates than Protestants. But the reason is not that Jews are less religious, nor is it that blacks

<sup>9</sup> But the same study reports that more Jews (92%) than Catholics (81%) or Protestants (75%) state that it is wiser to marry within one's own religious group (Lenski 1961, p. 54), which suggests the opposite, that Jews are less likely than Christians to intermarry.

or Catholics have fewer puritanical inhibitions about premarital sexual intercourse. It is simply that there are fewer of them than of their counterparts. Every act of intergroup sexual intercourse involves one person from each group, so that the difference between two groups in the rate of such acts is an inverse function of their size. The same is true of all dyadic symmetric association:<sup>10</sup> the rate of intergroup associations of the smaller of two groups must exceed that of the larger. The inference derived from Durkheim's theory is wrong. Minority groups may have stronger ingroup bonds, but their rates of social association with the majority exceed the majority's rates with them.

Hence, the arithmetic properties of groups imply the theorem that *in the relation between any two groups, the rate of intergroup associations of the smaller group exceeds that of the larger*. This first theorem (T-1) applies to three forms of associations and all their specific manifestations: (1) the proportion intermarried (or having another exclusive association, as mutual best friends) in the smaller group exceeds that in the larger (T-1.1); (2) the mean number of intergroup associates in the smaller group exceeds that in the larger (T-1.2); (3) the mean amount of time spent in intergroup associations is greater for the smaller than for the larger group (T-1.3).<sup>11</sup> Although the same principle does not apply to the proportion of members who have any intergroup associates, which can be greater in the small than in the large group, this is only possible if some members of the small group have particularly many intergroup associates and spend much time with them. The smaller group is more involved than the larger in the intergroup relations between the two, either because a greater proportion of the smaller group's members have intergroup associates with whom they spend time, or because those who do have intergroup associates have more of them and spend more time with them.

### Implications

These theorems are tautological, entailed by the definitions of group size and intergroup relations. But they have implications that are not tautological, and even those that are are not self-evident. When differences in group size are very great, most members of the majority have no social contact with the minority. This implies that most WASPs have no social contacts with blacks, Jews, and other small minorities, notwithstanding

<sup>10</sup> Concern is with the frequencies of actual dyadic associations, which are necessarily symmetric. The theorems do not apply to sentiments, deference, or sociometric choices, which are often not symmetric, nor do they apply to relations between a speaker and his audience or a leader and her followers, which are not dyadic.

<sup>11</sup> Every main theorem is in italics, though corollaries are not, and it (or the set including corollaries) is explicitly derived in statements immediately preceding or following it.

extensive associations of minorities with the majority. The social experience of associating with persons with different backgrounds undoubtedly affects attitudes and conduct. It may well broaden people's horizons, promote tolerance, and stimulate intellectual endeavors (Simmel 1908, pp. 685-87; Laumann 1973, pp. 98-105, 126-28). The structurally generated differences in intergroup experience between small minorities and a large majority would lead one to expect these characteristics to be more prevalent among the minorities (Veblen 1919; Seeman 1956).<sup>12</sup> For example, high intellectual achievements would be expected of disproportionate members of minorities, which is apparently the case for some minorities, such as Japanese and Jews. The low intellectual achievements of blacks conflict with this expectation. But a recent study shows that the educational achievements of blacks, when their initial handicaps are controlled, exceed those of whites (Portes and Wilson 1976), which conforms to the expectation that the more extensive intergroup experience of minorities furnishes intellectual stimulation.

*For the groups delineated by a given nominal parameter, the probability of extensive intergroup relations increases with decreasing size (T-2.1).* Specifically, group size is inversely correlated with the proportion intermarried (T-2.1), the mean number of intergroup associates (T-2.2), and the mean amount of time spent with intergroup associates (T-2.3). These probability theorems, which are not tautological, logically follow from the earlier deterministic ones. If in every dichotomy of groups the rate of intergroup associations of the smaller exceeds that of the larger group (T-1), the average rate of all small with larger groups must exceed that of all large with smaller groups, wherever the array of groups by size is divided into smaller and larger ones. Although some small groups may have lower rates of intergroup associations than some large ones, this necessitates that other small groups have exceptionally high rates to compensate for it. The theorems are restricted to comparisons of groups in terms of a given parameter, because differences in the salience of parameters independently influence the extent of intergroup relations. One can hardly expect the proportion of blacks married to whites to exceed the proportion of blue-eyed persons married to brown-eyed ones in the United States, though there are undoubtedly fewer blacks than blue-eyed persons, since skin-color, so-called, has much and eye-color little salience in American social life.

Research generally corroborates these theorems. Studies of religious and ethnic intermarriage find that group size is inversely related to rates of outmarriage (Thomas 1951; Locke, Sabagh, and Thomas 1957; Barnett

<sup>12</sup> Although the theory is macrostructural, it has microstructural implications, as illustrated by these conjectures about possible further implications of the theorems, which themselves have been deductively derived.

1962; Bealer, Willits, and Bender 1963; Burma 1963), sometimes after having started with a different hypothesis. Thus, Bealer and colleagues tested the hypothesis that closeness of religious dogma governs rates of intermarriage between Christian denominations, but their data required rejection of this hypothesis and disclosed that the size of a denomination largely governs its marriage rates with various specific others as well as its total out-marriage rate.<sup>13</sup> Interethnic sociable associations also have been observed to be more probable in small minorities (Williams 1964, p. 162). An apparent exception is revealed by comparison of what are often referred to as the three major religious denominations in the United States—Protestants, Catholics, and Jews—which shows that Jews have the lowest out-marriage rate, although they are the smallest group. But these three groups are not a meaningful classification based on a single parameter. Religion divides people into Christians and Jews, as well as such other religious categories as Muhammedans and Buddhists, which can be further divided into Catholics and Protestants and still further into specific denominations. The salience of the major subdivision is greater than that of the finer ones, as indicated by the higher marriage rates between Protestants and Catholics than between either and Jews. Nevertheless, the low intermarriage rates of Jews must be considered a negative case for T-2.1. As a probability theorem, T-2.1 is not falsified by one negative case. What would falsify it would be the failure of the data on numerous groups (such as those on 18 denominations mentioned in n. 13) to reveal a negative correlation between their size and intermarriage rate.

### Discrimination

The tautological theorem initially advanced (T-1) has unexpected implications for discrimination against minorities. The rate of intergroup relations depends on group size; so does a change in this rate, because the numerators are again identical while the denominators (group size) vary. A given number of associations yields a higher rate for a smaller group, and a given change in this number yields a greater change in the rate for the smaller group, owing to the smaller denominator. This has paradoxical implications for discrimination by a majority group against a minority, "discrimination" meaning simply the reluctance of majority members to associate with minority members, not any other bias in making decisions.

*The more a majority discriminates in social intercourse against a minority, the smaller is the difference between the majority's lower and the minority's higher rate of intergroup associations (T-3).* This surprising

<sup>13</sup> The rank correlation between the size of the 18 denominations and the rate of total intermarriage is  $-.79$  (computed from table 3, Bealer et al. 1963).

theorem follows in strict logic from the premises embodied in the definitions of terms, and it applies to proportion intermarried, average number of intergroup associates, and average amount of time spent with them. If the purpose of majority discrimination against minorities is to control the majority's own members' tendencies to associate with members of the minority, be it by enacting laws or through informal pressures, it serves its purpose well. But if the objective is to prevent minorities from having access to the majority without infringing on the freedom of choice of the majority's own members, majority discrimination defeats its purpose. For it restricts its own members' opportunities for intergroup associations much more than that of the minority's members, the more so the more severe the discrimination and the greater the difference in size. This applies to intimate as well as casual associations, and it applies if concern is restricted to completely mutual associations wanted equally by both parties, excluding such well-known cases of exploitation as sweatshops and sexual exploitation by majority men of minority women.

A corollary of T-3 is: As a majority's discrimination in social intercourse against a minority declines, the difference between the majority's lower and the minority's higher rate of intergroup associations becomes greater (T-3.1). To be sure, reduced discrimination by the majority increases its rate of intergroup associations as well as the minority's. But it simultaneously enlarges the difference between the majority's own lower and the minority's higher rate of intergroup involvement, inevitably so, strange as this may seem. The proportion of group members insulated from any intergroup associations probably changes in complementary fashion with changes in discrimination, but not necessarily: If some minority members have many intergroup associates, the proportion of the minority who have none could be the same as (or greater than) the proportion of the majority who have none. The larger the difference in size between majority and minority, however, the greater is the probability that the proportion insulated, and changes in that proportion, are higher in the majority than in the minority, because a person can have only a limited number of associates, particularly of close associates. For example, for the proportion of American blacks and whites who are insulated from any intergroup friendships to be the same, the average black would have to have 11 times as many intergroup friends as the average white (with most blacks having still more and some having none). Consequently, a probability theorem can be deduced from T-3.1: *As a majority's discrimination in social intercourse against a minority declines, the probable difference between the majority's higher and the minority's lower proportion of members who are insulated from close intergroup associations increases* (T-4).

A fictitious illustration can explicate this. If there are 1 million pairs of mutual best friends between a majority of 100 million and a minority

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of 10 million persons, 1% of the majority and 10% of the minority have such a friend, and 99% and 90% do not, a difference of 9% (table 1).<sup>14</sup> We imagine that a decline in discrimination by the majority increases these intergroup friendships from 1 to 3 million pairs, which raises the proportion with, and diminishes the proportion without, a best intergroup friend 2% in the majority and 20% in the minority. Hence the reduction in discrimination has increased the difference in both the proportion with and the proportion insulated from such intergroup friendships from 9% to 27%. It has also increased the ratio of the proportion insulated in the majority and in the minority, from 11:10 to 14:10.

The paradox is that when discrimination by a majority against a minority subsides, the inequality in intergroup involvement between the two becomes more pronounced. Discrimination against minorities in education, employment, and social intercourse has in all likelihood declined in the United States in recent decades, notwithstanding some backlash. Although this has expanded intergroup friendships and diminished insulation from intergroup contacts in the majority as well as the minorities, it has simultaneously increased the difference between minorities and the majority in the extent to which they know each other, socialize with each other, have close enough relations to trust each other. A decline in discrimination, while helping to integrate minorities in society, moves the social experience provided by intergroup life of most minority members and most majority members further apart.<sup>15</sup>

TABLE 1  
BEST FRIENDS BETWEEN A MAJORITY AND A MINORITY

	Majority (%)	Minority (%)	Difference (%)	Ratio
1 Million Intergroup Pairs:				
1. Number of persons (millions) . . . . .	100	10	...	...
2. Proportion with intergroup friend . . . . .	1	10	...	...
3. Proportion without intergroup friend . . . . .	99	90	9	11:10
Reduced Discrimination:				
3 Million Intergroup Pairs				
4. Proportion with intergroup friend . . . . .	3	30	...	...
5. Proportion without intergroup friend . . . . .	97	70	27	14:10

<sup>14</sup> Mutual *best* friends are used in this fictitious illustration to simplify it. Were the criterion close associate or "mutual friend," whether or not both are best friends, the values for "with intergroup friend" (rows 2 and 4) would be the same, but the values for "without intergroup friend" (rows 3 and 5) would be somewhat altered, though the pattern of differences would be essentially the same.

<sup>15</sup> The opposite extreme with virtually no social associations between minority and majority implies that there is no difference between the two groups in the social experiences entailed by intergroup relations, but it also implies that the minority is hardly integrated in the society, inasmuch as the integration of groups in society is defined by their intergroup relations.

If the trend of subsiding discrimination continues, all members of a small minority have eventually close associates in the majority, while most members of the majority still have no close minority associate. Ultimately, minority members may be as likely to marry and to be intimate with members of the majority as with members of their own group, which would mean that the minority has become fully assimilated and has ceased to exist as a group governing social distinctions. The process of assimilation enlarges some differences in the social experiences of a minority and the majority—those resting on intergroup involvement—before finally obliterating most or all of them.

What structural conditions foster intergroup relations and diminish discrimination? Two aspects of differentiation have these consequences: heterogeneity and intersecting parameters.

#### DIFFERENTIATION

The size of collectivities and the size distributions within and among them have a dominant impact on social life. This profound insight of Simmel's has long been neglected in social theory and research, particularly in macro-sociological inquiries, which have either ignored size completely or tried to control it in order to search for other social influences presumed to be more interesting.<sup>16</sup> Recently, however, social scientists have begun to take size seriously as a concept of fundamental theoretical importance for understanding social relations and social structures. Thus, Mayhew constructs theoretical models that explain on the basis of size alone such diverse phenomena as the formation of elites in societies (1973), differentiation in organizations (Mayhew et al. 1972), and crime rates in cities (Mayhew and Levinger 1976). Research on organizations finds that their size governs many features of their administrative structure (Pugh et al. 1969; Blau and Schoenherr 1971). This approach, which characterizes the theory here outlined, centers attention on the implications of the number of people and their distribution for social relations and for the social structure, including the implications that are mathematically inevitable, from which often further conclusions can be deduced that are not mathematically inevitable.

If differences in group size influence rates of social association between group members, as we have seen, it is of interest to examine how social relations are affected by the distributions of society's entire population among groups and in terms of status, that is, by the two forms of differentiation, heterogeneity and inequality. For this purpose, substantive assumptions about two conditions that influence people's associations are

<sup>16</sup> Attempts to control size in research on social structure often actually fail to do so, as noted by McFarland and Brown (1973, pp. 238–40) and others.

introduced. The preceding theorems do not require these assumptions, or any others, because they are deducible from the analytic propositions defining groups (in terms of size) and intergroup relations (in terms of rates). It should be noted that all theorems, those depending on assumptions as well as those that do not, make assertions about rates of social association, not about the social associations of particular individuals, just as Durkheim's (1951) theory makes statements about rates of suicide. Not all Protestants commit suicide, of course. Similarly, many American whites have extensive friendships with blacks, and many blacks have no white friends, but this does not conflict with the deterministic prediction, implied by T-1 and the racial composition of the United States, that the rate of interracial friendships of blacks exceeds that of nonblacks. Even deterministic propositions about rates of social events imply only probability statements about individual events.

### Assumptions

The first assumption is that *social associations are more prevalent among persons in proximate than those in distant social positions* (A-1). Social proximity is defined in terms of parameters, not in terms of rates of social association. Hence, it is a dichotomy for a nominal parameter but varies by degree for a graduated parameter. The assumption has accordingly two corollaries: for nominal parameters, ingroup associations are more prevalent than outgroup associations (A-1.1); for graduated parameters, the prevalence of social associations declines with status distance (A-1.2). The prevalence of social associations refers not to their absolute rates but to the excess of the observed rates over those theoretically expected on the basis of the population distribution.<sup>17</sup> (The degree to which these observed values exceed the expected ones indicates the salience of the parameter.)

There is much empirical evidence that supports this assumption. For example, disproportionate numbers of marriages involve spouses of the same religion (Kennedy 1944; Hollingshead 1950; Coombs 1962; Willits, Bealer, and Bender 1963); ethnic origin (Murdock 1949; Coombs 1962); residential area (Schapera 1946; Murdock 1949); education (Blau and Duncan 1967); socioeconomic status (Centers 1949; Murdock 1949; Hollingshead 1950; Goode 1962; Blau and Duncan 1967). Friendships, too, are disproportionately often formed with persons who share one's re-

<sup>17</sup> The actual rate of ingroup associations of very small groups is most unlikely to exceed in absolute value their rate of intergroup associations, which is the reason why the operational criterion of the assumption is the excess of actual rates over those expected on the basis of the population frequency distribution. But the operational criterion of intergroup relations is actual rates, without controlling frequencies, since the influence of size or frequencies is the substantive concern of the theory, which would be concealed were frequencies statistically controlled.



ligion and socioeconomic background (Hollingshead 1949; Laumann 1973), as well as with those of the same sex and race (Lazarsfeld and Merton 1954). To be sure, the assumption is undoubtedly not met for all possible attributes of people. Those attributes for which it is not met may be considered not to refer to social positions, which transforms the principle that prevalence of associations depends on proximity from a substantive assumption into an analytic proposition that defines social positions and parameters.

A second assumption is that *social associations depend on opportunities for social contacts* (A-2). This assumption is hardly open to question, because persons cannot associate without having opportunities for contact, and a direct implication of it is corroborated by empirical evidence. Inasmuch as the physical propinquity of people increases their opportunities for contacts, the assumption implies that *physical propinquity increases the probability of social association* (T-5). Research shows that propinquity, including very small differences in physical distance, increases the likelihood of friendships (Festinger, Schachter, and Back 1950) and of marriage (Christensen 1958).

A final assumption is that *the influences of various parameters on social associations are partly additive, not entirely contingent on one another* (A-3). The assumption is not that parameters have no interaction or joint effects on social relations, merely that the effects of any one are not entirely dependent on and cannot be completely suppressed by variations in other parameters. In other words, it is assumed that persons who share several social positions are more likely to associate with each other than are those who share fewer and that sharing a given social position makes associations more likely between both those who do and those who do not share other positions. For example, people who have the same religion or education or any other salient social attribute are expected to be more likely to associate with each other than are others, regardless of whether they also share other social attributes. Actually, A-3 simply makes explicit what is already implicit in A-1—that any common or similar attribute that is considered a parameter makes social associations more probable.

### Differentiation in a Single Dimension

Before turning to the implications of these assumptions for differentiation, implications of the initial theorems for status differences are examined. Status distributions are nearly always positively skewed, with few persons in high status and many in lower status. Some status structures are pyramids, with the largest frequencies at the bottom and declining frequencies as one moves up. Authority in organizations and wealth in society are typically distributed in this manner. Other status structures are trun-

cated diamonds, with frequencies first increasing as one goes up from the bottom and only then decreasing. This tends to be the case for income distribution in western societies. A new theorem is deducible from T-1, that the rate of social association of a smaller with a larger group exceeds that of the larger with the smaller group, given the size differences in a pyramidal status structure or in the pyramidal upper part of another status structure:

*In a pyramidal status structure, the rate of social association of any higher with any lower stratum exceeds that of this lower with this higher stratum (T-6).*<sup>18</sup> If such a difference necessarily characterizes the rates of association between any two strata in a pyramid, it is probable that all strata except the lowest have higher rates of association with lower than with equivalent higher strata. The reason is that all strata in a pyramid except the lowest are smaller than others below and larger than others above them, and the theorem that a group's probable rate of association is an inverse function of its comparative size (T-2) implies that the association rate of a group with another compared to which it is small probably exceeds its association rate with another group compared to which it is large. Consequently, an inference from T-2 is: *People in middle as well as in high strata in a pyramid probably associate more with others below them than with others above them in status (T-7).*

*Reductions in inequality diminish the impact of status on social associations (T-8).* This theorem follows from the assumption that status distance discourages social associations (A-1.2) and the definition of inequality in terms of average status distance. Note that there is no reason to assume that a decline in educational inequality, for instance, lessens the salience of education, at least in the short run; the implication is that a given difference in education will continue to have the same adverse effect on social intercourse. However, after educational inequality has declined, fewer people than before differ widely in education; therefore educational differences have less impact on social intercourse in the society. Whether reductions in inequality affect in the long run the salience of education (or another status) and consequently have further repercussions for social associations is a moot question.

Heterogeneity and inequality, the two forms of differentiation, have opposite implications for social associations among persons whose social positions differ. To be sure, heterogeneity, like inequality, creates barriers to social intercourse, in accordance with the assumption that intergroup associations are less prevalent than ingroup associations (A-1.1). But much or increasing heterogeneity weakens these barriers and promotes intergroup relations. This paradoxical conclusion follows from the assump-

<sup>18</sup> Strata are defined by any equal status intervals, but not by population percentiles; for example, by intervals of \$1,000 in income, or by intervals of two years of schooling.

tion that social associations depend on opportunities for social contacts (A-2). Since the degree of heterogeneity is defined by the probability that two randomly selected persons belong to different groups, increasing heterogeneity makes it more likely that fortuitous contact will involve members of different groups, thereby increasing the opportunities for and hence the probability of intergroup associations. In relatively homogeneous communities, there are few group barriers, but those that do exist tend to inhibit social associations more than the more prevalent group barriers in heterogeneous communities. Prevalent group barriers are not so great barriers to social intercourse. The theorem logically deducible from A-2 and the definition of heterogeneity is: *Increasing heterogeneity increases the probability of intergroup relations* (T-9).<sup>19</sup>

### Multiple Differentiation

Only the influences of a single parameter on social life have been considered so far, not yet those of combinations of parameters. People in all societies have several group affiliations, and those in complex societies have many, which are partly intersecting. Differences in sex, race, national background, religion, and occupation do not coincide, though some are correlated. The numerous, partly intersecting nominal parameters of complex social structures engender multiform heterogeneity, which exerts much greater structural constraints on intergroup relations than simple heterogeneity in one dimension.

Pronounced multiform heterogeneity compels people to establish intergroup relations, because it implies that ingroup relations are simultaneously intergroup relations in terms of different parameters (Blau 1974). It is impossible not to associate with outsiders when one's ingroup associates in one dimension are, in several others, members of other groups than one's own (Merton 1972, pp. 22-25). For individuals to satisfy their most salient ingroup preferences, they must set aside other ingroup preferences and enter into intergroup relations along other lines. The very fact that prejudiced persons discriminate against associating with outgroups of various kinds restricts their other choices and constrains them

<sup>19</sup> In the analysis of differentiation in a single dimension, nominal parameters are treated as unordered categories and interest is confined to the degree of heterogeneity they indicate. Actually, nominal groups differ in various ways on the basis of which they can be ordered. Occupations are an obvious example: They are nominal groups, but they differ in status. The analysis of multiple parameters takes into account such graded differences among nominal groups in terms of which they can be ordered, inasmuch as it deals with the correlations of a nominal with various graduated parameters. However, the primary substantive focus here is not on trying to discover the major dimensions in terms of which groups can be ordered, as it is for Laurmann (1973), but on the extent to which parameters are correlated or orthogonal and its distinctive significance for social relations.

to be more tolerant about associating with outsiders in terms of these other parameters. For example, many academics seem to exhibit strong ingroup biases in their conduct in favor of associates with similar advanced education, who are also academics, and who often are even in the same discipline. One might conjecture that these ingroup biases, by restricting freedom of choice along other lines, are in part responsible for the tolerance of academics about associating with colleagues regardless of religion, class origin, and ethnic background.

What generates these structural constraints on intergroup relations is that parameters are intersecting—that differences of one kind among people are not related or are only slightly related to differences of other kinds among them. *Intersecting parameters promote intergroup relations* (T-10). This theorem applies to the intersection among nominal, among graduated, and of graduated with nominal parameters, and it follows from the assumptions that proximity promotes social associations (A-1) and that the influences of parameters are partly additive (A-3). If differences in income are little related to differences in religion, education, and other social attributes, ingroup preferences in regard to these attributes prompt persons to associate with others whose income differs from theirs. The opposite is the case, however, if income differences are strongly related to differences in other social attributes. Under this condition, the ingroup preferences in regard to the other attributes lead—inadvertently, as it were—to disproportionate associations among persons whose income is similar too, reinforcing the independent effect of income on social associations. Accordingly, a theorem complementary to T-10 is implied by the same two assumptions (A-1 and A-3).

*Strongly correlated parameters consolidate status and group differences and thereby impede intergroup relations* (T-11). When the social differences delineated by various parameters largely coincide, their inhibiting effects on social intercourse reinforce one another. Individuals who differ on many salient social attributes do not have sufficient common interests to sustain extensive social associations, and differences in numerous social positions also reduce the likelihood that instrumental activities bring persons together. If parameters are consolidated, even individuals who do not have ingroup preferences in terms of a given parameter will mostly associate with the ingroup, owing to this parameter's correlations with other parameters in terms of which they do have ingroup preferences. This can be illustrated with the case of the academics mentioned. Tendencies to associate with persons in the same discipline lead to intergroup relations in terms of social background only if academic discipline is little related to background characteristics and colleagues in a discipline greatly vary in religion, class origin, and ethnic background. If academic discipline and background characteristics are strongly correlated, most colleagues in a

discipline have the same social background. In this situation, the tendency to associate with colleagues in one's discipline entails associating mostly with persons who also share one's religion, class origin, and ethnic background, even for individuals who have absolutely no ingroup preferences in terms of these background characteristics.

When parameters are intersecting, ingroup bias leads to intergroup relations; when they are consolidated, lack of ingroup bias leads to ingroup relations. Variations in structural conditions—the interrelations of parameters—determine what consequences given sociopsychological tendencies have for the social processes that integrate the various segments of society. The consolidation and intersection of parameters are polar opposites on the same continuum, indicated by the correlations of parameters. The stronger their positive correlation, the more consolidated parameters are. The weaker their positive correlation, the more parameters intersect.<sup>20</sup>

Intersecting parameters reflect a highly differentiated social structure, whereas consolidated parameters are indicative of a less complex structure with fewer independent lines of differentiation. At the same time, intersecting parameters further the integration of the different segments of society by promoting extensive associations among groups and strata. No assumption about value consensus or functional interdependence has been made to arrive at this conclusion. Functional interdependence typically entails much one-sided dependence and power inequality, which are more likely to impede than to foster social integration. The only substantive assumptions needed to derive the conclusion are that people associate more with others in proximate than with those in distant social positions (A-1) and that this is the case for every parameter (A-3). Although the assumptions stipulate merely proclivities for ingroup associations, nothing about intergroup associations, they suffice to deduce from them, jointly with analytic propositions defining structural properties, tendencies to engage in intergroup associations under specified structural conditions. Variations in structural constraints explain the influence that given (invariant) sociopsychological dispositions exert on the social processes that integrate the segments of society.

## SUBSTRUCTURES

The components of complex social structures are themselves social structures. Societies are composed of communities, which have their own social

<sup>20</sup> Correlations of nominal parameters have no sign and thus cannot be negative. But correlations of graduated parameters can be negative, though it is empirically rare for various aspects of status to be negatively related. Negatively correlated graduated parameters are conceptualized as being still more intersecting than uncorrelated ones, because the structural constraints on social life of opposite status differences in two dimensions are similar to but even greater than those of unrelated status differences.

structure. The propositions advanced apply to the structure of communities as well as that of societies. But society is more than the sum of its communities. Society's structure comprises differences and connections among as well as within its substructures. Any form of differentiation in society is the result of the differentiation within its communities and the differentiation among them. For example, the income inequality in society is the product of the inequalities in income within communities and the income differences among communities. Society's ethnic heterogeneity is the result of some such heterogeneity within and some ethnic differences among communities. The consolidation (correlation) of education and income in society is produced partly by their correlations within communities and partly by the ecological correlation between mean education and mean income for communities.

### Decomposition

The influence exerted on social associations by a given form of differentiation in society can be decomposed into the influence of the differentiation within communities and that of the differentiation among them. The question raised is not what influences various forms of differentiation within communities exert on social relations. This question has been partly answered in the preceding discussion, which applies to the structure of communities, as noted. The problem posed now is what relative significance differentiation within and differentiation among communities, respectively, have for society's intergroup relations and integration. Does the existing degree of heterogeneity or of inequality in society at large influence intergroup relations more if it occurs primarily within the various communities or if it is largely the result of differences among communities?

A corollary of the theorem previously advanced that propinquity increases the probability of social associations (T-5) is that most social associations take place in people's own communities (T-5.1). One would therefore surmise that intergroup relations are more affected by heterogeneity and inequality within communities, where most social associations occur, than by average group and status differences among communities. Since heterogeneity promotes intergroup relations (T-9), one would expect heterogeneity within communities to promote them more than society's heterogeneity that is largely the result of group differences among communities. Correspondingly, since inequality impedes interstratum associations (T-8), one would expect much inequality within communities to impede them more than society's inequality that is largely the result of great status differences among communities, with lesser inequalities within

them. Actually, only the first of these two expectations is correct; the second is false.

*The more society's heterogeneity results from heterogeneity within rather than among communities, the more probable are both intergroup associations and associations among different communities (T-12).* This theorem is deducible from T-5 (or T-9) and A-1. The propinquity of different groups (T-5) living in the same heterogeneous communities increases opportunities for and probabilities of intergroup relations. Besides, mostly within-community heterogeneity implies that the members of a group are dispersed among different communities and few of them are in the same community, which makes it more difficult to satisfy ingroup preferences (A-1) within one's community and encourages associations across communities to satisfy them. These tendencies will be most pronounced for members of small groups living in small communities, for instance, black professionals living in small towns. On the other hand, heterogeneity that exists mostly among communities entails greater homogeneity within communities, with different groups largely living in different communities. In this situation, physical (T-5) and social distances (A-1) tend to coincide and discourage both intergroup and intercommunity associations. In short, the segregation of groups in different communities counteracts the positive effect of heterogeneity on intergroup relations.

*The more society's inequality results from inequality within rather than among communities, the more probable are social associations both among different strata and among different communities (T-13).* This conclusion is quite unexpected, but it follows from the same premises as the preceding theorem. To be sure, great inequality makes social associations among different strata less likely, not more likely. The comparison in the theorem is not among communities that differ in inequality, however, but among societies that vary in regard to the extent to which their existing inequality is mostly owing to inequality within or mostly to that among communities. Still, one might have thought that inequality within communities would have greater adverse effects on social associations than would average status differences among communities. Yet this is wrong, as an illustration clearly shows. When poor and rich live in different communities, the inhibiting effects of status distance (A-1) and physical distance (T-5) on social associations reinforce each other. Mostly within-community inequality implies that different strata live in the same communities and that the same strata are dispersed among different communities. Under these conditions, persons from different strata are more likely to associate than when they live in different communities, owing to physical propinquity (T-5), and the common interests of persons in the same stratum who live in different communities promote some association among them, owing to status proximity (A-1.2). Although inequalities within commu-

nities inhibit social associations, they do not inhibit them as much as do inequalities that are reinforced by residential segregation among strata.

Surprisingly, society's inequality as well as its heterogeneity is more compatible with integrative social associations among its different segments when it exists primarily within communities than when it results mostly from the great differences among communities. Much differentiation of any kind within communities and little among them furthers social relations among the various segments of society. Indeed, a still broader generalization can be derived.

## Penetrating Differentiation

Communities are not the only substructures into which a society can be divided. Place of work instead of place of residence can be the criterion of substructure, and one can partition the division of labor, for instance, into the occupational differences within and those among work organizations. As a matter of fact, any nominal parameter can be the criterion of substructure. Moreover, successive levels of subdivision can be taken into account: nation, province, town, neighborhood; or, organization, department, section, subunit; or, major occupational group, detailed occupation, specialty. The following proposition applies to any form of differentiation (consolidated as well as simple inequalities and heterogeneities), any type of substructure, on any level.

*The penetration of differentiation into substructure promotes intergroup relations of all kinds, that is, it increases the probabilities of social associations among the differentiated groups and strata and among the substructures (T-14).* This theorem is deduced from T-10, that intersecting parameters promote associations among groups and strata, since greater penetration into substructures entails more intersection of the parameters delineating differentiation with the parameter defining the substructures.<sup>21</sup> For example, if there is much income inequality within communities but little within the neighborhoods of the various communities, inequality penetrates less deeply and income intersects less with location than if there is also much income inequality within neighborhoods. Similarly, if great ethnic differences exist among major occupational groups and also among detailed occupations but not within detailed occupations, ethnic heterogeneity penetrates less into the occupational structure and ethnic differences intersect less and are more correlated with occupational differences than if there is much ethnic variation within the detailed occupations. The

<sup>21</sup> The two preceding theorems, T-12 and T-13, are also alternatively deducible from T-10, inasmuch as differentiation within rather than among communities entails more intersection of the parameter delineating the differentiation with community location, which may be considered a nominal parameter.



greater internal inequality or heterogeneity fosters social associations among the different strata or groups, owing to their common position in the same substructures, and also among substructures, owing to the common status or group membership of many members of different substructures (according to A-1 and A-3, from which T-10 is derived, and which are the only assumptions required to deduce T-14). In short, the penetration of differentiation into substructures weakens the correlation of parameters, which promotes intergroup relations (T-10).

Penetrating differentiation exerts a centrifugal force on social relations that directs them outward and integrates the diverse segments in society. The social integration of a large population in a complex society cannot rest solely on some common values and some interdependence; it requires that the diverse groups and hierarchical strata are not isolated from one another but connected through social associations among their members. This is the reason that society's integration is here defined in terms of the extent of social associations among different groups and strata. The plausible sociopsychological assumption that people prefer ingroup (and proximate-status) to outgroup (and distant-status) associates seems to imply that large societies are necessarily fragmented into segments with few social relations among them. This inference is wrong, however, because it ignores the impact of structural conditions on social relations. When the multiple parameters characterizing social structures are taken into account, it becomes apparent that this very assumption has implications for intergroup relations. The extent of social relations among society's different segments depends on structural conditions. Specifically, the more structural parameters intersect, the more extensive are intergroup relations. Although the homogeneity of narrow social circles discourages intergroup relations, intersecting parameters disturb this homogeneity. Numerous strongly intersecting parameters imply that differentiation in various forms penetrates into the interstices of society, exerting structural constraints to engage in intergroup associations and thereby integrating the diverse segments of society.

## CONCLUSIONS

This paper has outlined a theory of the structure of social associations which is elaborated elsewhere (Blau 1977). The foundation of the theory is a quantitative conception of social structure as the distributions of a population among social positions in a multidimensional space of positions. The axes in this space are termed "parameters," which distinguish either nominal positions, like sex and race, or status gradations, like education and income. The two generic forms of differentiation are heterogeneity, defined

## Macrosociological Theory of Social Structure

by the distribution of people among nominal positions, and inequality, defined by their distribution in terms of a status criterion.

The substantive focus of the theory is on the influences exerted by structural conditions, particularly the relationships of parameters, on the rates of social associations among different groups and strata, inasmuch as social integration is conceived to rest on extensive social relations among the different segments of society. The theory constructed is a deductive one: 14 theorems and a number of corollaries have been derived—in strict logic, I believe—from the analytical propositions defining properties of social structure and three assumptions, which are synthetic propositions. The assumptions are: (1) social proximity promotes social associations; (2) social associations depend on opportunities for contacts; (3) the influences of parameters are partly additive. The role of these assumptions in the theory is as givens, equivalent to the role of assumption of maximizing utility in economic theory. The substantive focus is not on the significance of these assumptions but, given them, on the significance of variation in structural conditions for processes of social association and social integration.

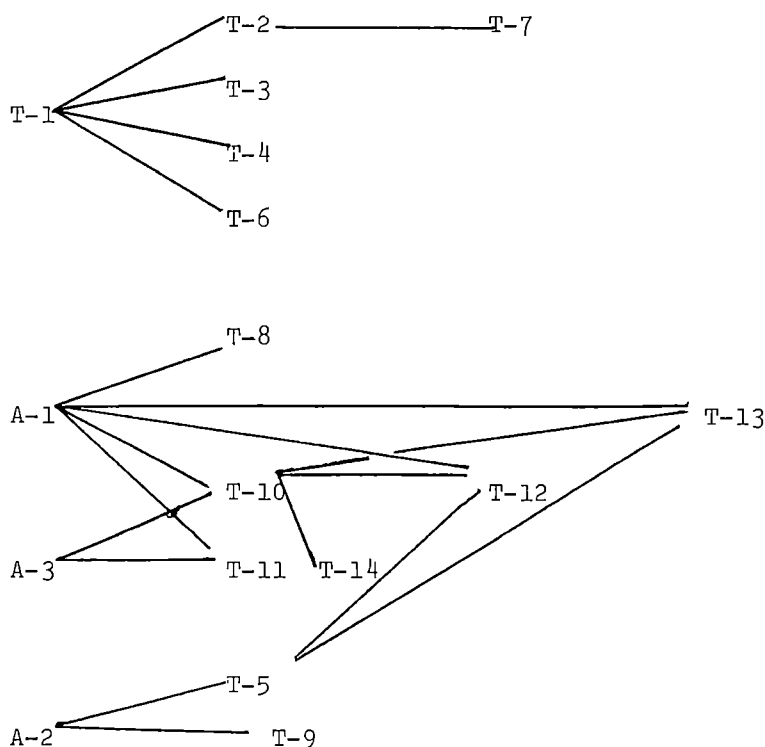


FIG. 1.—Chains of implications

The main chains of implications (not including definitions) are sketched in figure 1. To summarize the 14 theorems derived: (1) In the relation between two groups, the intergroup involvement of the smaller exceeds that of the larger group. (2) The probability of extensive intergroup relations decreases with increasing group size. (3) The more a majority discriminates against a minority in social intercourse, the smaller is the difference between the majority's and the minority's intergroup involvement. (4) As a majority's discrimination against a minority in social intercourse declines, the probable difference between the majority's higher and the minority's lower proportion of members who are insulated from intergroup associations increases. (5) Physical propinquity promotes social associations. (6) In a pyramidal structure, the rate of social associations of a higher with a lower stratum exceeds the rate of the lower with the higher stratum. (7) People in middle as well as in high strata in a pyramid are more likely to associate with others below them than with others above them in status. (8) Reductions in inequality diminish the impact of status on social associations. (9) Increasing heterogeneity promotes intergroup relations. (10) Intersecting parameters promote intergroup relations. (11) Consolidated parameters impede intergroup relations. (12) If society's heterogeneity results mostly from heterogeneity within rather than differences among communities, it promotes intergroup and intercommunity relations. (13) If society's inequality results mostly from inequality within rather than differences among communities, it promotes social associations among different strata and different communities. (14) The penetration of differentiation into substructures promotes social relations among various segments of society that integrate them.

## REFERENCES

- Barnes, John A. 1954. "Class and Committees in a Norwegian Island Parish." *Human Relations* 7 (February): 39-58.
- Barnes, John A. 1972. *Social Networks*. Modular Publication no. 26. Reading, Mass.: Addison-Wesley.
- Barnett, Larry D. 1962. "Research in Interreligious Dating and Marriage." *Marriage and Family Living* 24 (May): 191-94.
- Bealer, Robert C., Fern K. Willits, and Gerald W. Bender. 1963. "Religious Exogamy." *Sociology and Social Research* 48 (October): 69-79.
- Blau, Peter M. 1974. "Parameters of Social Structure." *American Sociological Review* 39 (October): 615-35.
- . 1977. *Inequality and Heterogeneity*. New York: Free Press.
- Blau, Peter M., and Otis Dudley Duncan. 1967. *The American Occupational Structure*. New York: Wiley.
- Blau, Peter M., and Richard A. Schoenherr. 1971. *The Structure of Organizations*. New York: Basic.
- Burma, John H. 1963. "Interethnic Marriage in Los Angeles, 1948-1959." *Social Forces* 42 (December): 156-65.
- Centers, Richard. 1949. "Marital Selection and Occupational Strata." *American Journal of Sociology* 54 (May): 530-35.

## Macrosociological Theory of Social Structure

- Christensen, Harold F. 1958. *Marriage Analysis*. New York: Ronald.
- Coleman, James S. 1957. *Community Conflict*. Glencoe, Ill.: Free Press.
- Coleman, James S., and Duncan MacRae, Jr. 1960. "Electronic Processing of Sociometric Data for Groups up to 1000 in Size." *American Sociological Review* 25 (October): 722-27.
- Coombs, Robert H. 1962. "Reinforcement of Values in the Parental Home as a Factor in Mate Selection." *Marriage and Family Living* 24 (May): 155-57.
- Davis, James A. 1967. "Clustering and Structural Balance in Graphs." *Human Relations* 20 (May): 181-87.
- Duncan, Otis Dudley. 1961. "A Socioeconomic Index for All Occupations." Pp. 109-38 in *Occupations and Social Status*, edited by Albert J. Reiss, Jr. et al. New York: Free Press.
- Durkheim, Émile. 1951. *Suicide*. Glencoe, Ill.: Free Press.
- Evans-Pritchard, E. E. 1940. *The Nuer*. Oxford: Clarendon.
- Festinger, Leon, Stanley Schachter, and Kurt W. Back. 1950. *Social Pressures in Informal Groups*. New York: Harper.
- Gibbs, Jack P., and Walter T. Martin. 1962. "Urbanization, Technology and the Division of Labor." *American Sociological Review* 27 (October): 667-77.
- Goode, William J. 1962. "Marital Satisfaction and Instability." *International Social Science Journal* 14 (3): 501-26.
- Harary, Frank, R. Z. Norman, and Dorwin Cartwright. 1965. *Structural Models: An Introduction to the Theory of Directed Graphy*. New York: Wiley.
- Hollingshead, August B. 1949. *Elmstown's Youth*. New York: Wiley.
- . 1950. "Cultural Factors in the Selection of Marriage Mates." *American Sociological Review* 15 (October): 619-27.
- Homans, George C. 1961. *Social Behavior: Its Elementary Forms*. New York: Harcourt Brace Jovanovich.
- Kennedy, Ruby Jo Reeves. 1944. "Single or Triple Melting Pot?" *American Journal of Sociology* 49 (January): 331-39.
- Kinsey, A., W. Pomeroy, and C. Martin. 1948. *Sexual Behavior in the Human Male*. Philadelphia: Saunders.
- Kroeber, A. L., and Talcott Parsons. 1958. "The Concepts of Culture and of Social System." *American Sociological Review* 23 (October) 582-83.
- Laumann, Edward O. 1973. *Bonds of Pluralism*. New York: Wiley.
- Laumann, Edward O., and Franz U. Pappi. 1976. *Networks of Collective Action*. New York: Academic.
- Lazarsfeld, Paul F., and Robert K. Merton. 1954. "Friendship as a Social Process." Pp. 18-66 in *Freedom and Control in Modern Society*, edited by M. Berger, T. Abel, and C. H. Page. New York: Van Nostrand.
- Lazerwitz, Bernard. 1961. "Some Factors Associated with Variations in Church Attendance." *Social Forces* 39 (May): 301-9.
- Lenski, Gerhard. 1961. *The Religious Factor*. Garden City, N.J.: Doubleday.
- Locke, Harvey J., Georges Sabagh, and Mary Margaret Thomas. 1957. "Interfaith Marriages." *Social Problems* 4 (April): 329-35.
- Mayhew, Bruce H. 1973. "System Size and Ruling Elites." *American Sociological Review* 38 (August): 468-75.
- Mayhew, Bruce H., and Robert L. Levinger. 1976. "On the Emergence of Oligarchy in Human Interaction." *American Journal of Sociology* 81 (March): 1017-49.
- Mayhew, Bruce H., Robert L. Levinger, J. M. McPherson, and J. F. James. 1972. "System Size and Structural Differentiation in Formal Organizations." *American Sociological Review* 37 (October): 629-33.
- McFarland, David D., and Daniel J. Brown. 1973. "Social Distance as a Metric." Pp. 213-53 in Edward D. Laumann, *Bonds of Pluralism*. New York: Wiley.
- Merton, Robert K. 1972. "Insiders and Outsiders." *American Journal of Sociology* 78 (July): 21-29.
- Mitchell, J. Clyde. 1969. "The Concept and Use of Social Networks." Pp. 1-50 in *Social*

## American Journal of Sociology

- Networks in Urban Situations*, edited by J. Clyde Mitchell. Manchester: Manchester University Press.
- Moreno, S. L. 1934. *Who Shall Survive?* Washington, D.C.: Nervous and Mental Disease Publishing.
- Murdock, George P. 1949. *Social Structure*. New York: Macmillan.
- Nadel, Siegfried F. 1957. *The Theory of Social Structure*. Glencoe, Ill.: Free Press.
- Parsons, Talcott. 1966. *Societies: Evolutionary and Comparative Perspectives*. Englewood Cliffs, N.J.: Prentice-Hall.
- Parsons, Talcott, and Edward A. Shils. 1951. *Toward a General Theory of Action*. Cambridge, Mass.: Harvard University Press.
- Portes, Alejandro, and Kenneth L. Wilson. 1976. "Black-White Differences in Educational Attainment." *American Sociological Review* 41 (June): 414-31.
- Pugh, D. S., David J. Hickson, C. R. Hinings, and C. Turner. 1969. "The Context of Organization Structure." *Administrative Science Quarterly* 14 (March): 91-114.
- Radcliffe-Brown, A. R. 1940. "On Social Structure." *Journal of the Royal Anthropological Institute* 70: 1-12.
- Schapera, I. 1946. "Some Features in the Social Organization of the Tloka (Bechuland Protectorate)." *Southwest Journal of Anthropology* 2: 16-47.
- Seeman, Melvin. 1956. "Intellectual Perspective and Adjustment to Minority Status." *Social Problems* 3 (January): 142-53.
- Simmel, Georg. 1908. *Soziologie*. Leipzig: Duncker & Humblot.
- Sorenson, Robert C. 1973. *Adolescent Sexuality in Contemporary America*. New York: World.
- Thomas John L. 1951. "The Factor of Religion in the Selection of Marriage Mates." *American Sociological Review* 16 (August): 487-91.
- Veblen, Thorstein B. 1919. "The Intellectual Pre-eminence of Jews in Modern Europe." *Political Science Quarterly* 34 (1): 33-42.
- White, Harrison C., Scott A. Boorman, and Ronald L. Breiger. 1976. "Social Structure from Multiple Networks I." *American Journal of Sociology* 81 (January): 730-80.
- Williams, Robin M., Jr. 1964. *Strangers Next Door*. Englewood Cliffs, N.J.: Prentice-Hall.
- Willits, Fern K., Robert C. Bealer, and Gerald W. Bender. 1963. "Interreligious Marriage among Pennsylvania Rural Youth." *Marriage and Family Living* 25 (January): 433-38.

# The Effects of Education as an Institution<sup>1</sup>

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Education is usually seen as affecting society by socializing individuals. Recently this view has been attacked with the argument that education is a system of allocation, conferring success on some and failure on others. The polemic has obscured some of the interesting implications of allocation theory for socialization theory and for research on the effects of education. But allocation theory, too, focuses on educational effects on individuals being processed. It turns out to be a special case of a more general macrosociological theory of the effects of education as a system of legitimation. Education restructures whole populations, creating and expanding elites and redefining the rights and obligations of members. The institutional effects of education as a legitimation system are explored. Comparative and experimental studies are suggested.

How does education affect society? The dominant view has it that the schools process individuals. They are organized networks of socializing experiences which prepare individuals to act in society. More direct macrosociological effects have been given little attention. Yet in modern societies education is a highly developed institution. It has a network of rules creating public classifications of persons and knowledge. It defines which individuals belong to these categories and possess the appropriate knowledge. And it defines which persons have access to valued positions in society. Education is a central element in the public biography of individuals, greatly affecting their life chances. It is also a central element in the table of organization of society, constructing competencies and helping create professions and professionals. Such an institution clearly has an impact on society over and above the immediate socializing experiences it offers the young.

Recently, the traditional socialization view has been attacked with an argument which incorporates a more institutional conception of education, though in a very limited way. Education is seen as an allocating institution—operating under societal rules which allow the schools to directly

<sup>1</sup> This paper was prepared with funds from the National Institute of Education (contract NIE-C-74-0123 to Vasquez Associates, Ltd.). The views expressed here are those of the author, not of the NIE. Some ideas developed here are presented in more limited form in Meyer (1973) and Meyer and Rubinson (1975). I am indebted to the advice and help of many colleagues, among them William Bowers, Christopher Chase-Dunn, Michael Hannan, David Kamens, Patrick McDonnell, Francisco Ramirez, and Richard Rubinson.

confer success and failure in society quite apart from any socializing effects (e.g., Collins 1971; Bowles and Gintis 1976). Allocation theory leaves open the possibility that expanded educational systems have few net effects on society. The polemic controversy has obscured the fact that allocation theory (and institutional theory in general) has many unexplored implications for socialization theory and research; those implications are considered here. For instance, allocation theory suggests effects of expanded educational institutions both on those who attend and those who do not attend schools. It also can explain why completing a given level of schooling often matters much more in determining educational outcomes than do the features of the particular school attended.

But conventional allocation theory, while considering the institutional properties of educational systems, focuses mainly on the outcomes for individuals being processed. It tends to be assumed that education has no effect on the distribution of political, economic, and social positions in society. Allocation theory is thus a limited special case of a more general institutional theory—legitimation theory—which treats education as both constructing or altering roles in society and authoritatively allocating personnel to these roles. Modern educational systems involve large-scale public classification systems, defining new roles and statuses for both elites and members. These classifications are new constructions in that the newly defined persons are expected (and entitled) to behave, and to be treated by others, in new ways. Not only new types of persons but also new competencies are authoritatively created. Such legitimating effects of education transcend the effects education may have on individuals being processed by the schools. The former effects transform the behavior of people in society quite independent of their own educational experience.

In this paper, I develop the ideas of legitimation theory and propose comparative and experimental studies which could examine the effects of education on social structure, not simply on the individuals it processes. I move away from the contemporary view of educational organization as a production system constructing elaborated individuals. Modern education is seen instead as a system of institutionalized rites transforming social roles through powerful initiation ceremonies and as an agent transforming society by creating new classes of personnel with new types of authoritative knowledge.

#### THE TRADITIONAL SOCIALIZATION MODEL

Prevailing research on school effects is organized around a simple image of socialization in society: Schools provide experiences which instill knowledge, skills, attitudes, and values in their students. These students then have a revised and expanded set of personal qualities enabling them to

demand more from, and achieve more in, the role structure of modern society. As the competence and orientation of the personnel of society are expanded and modernized, so society as a larger system is modernized and expanded.

Three general propositions are at issue here and make up a simple model, which is diagrammed in figure 1:

Proposition 1 (*Socialization*). Schooled persons are socialized to expanded levels of knowledge and competence and expanded levels of modern values or orientations.

Proposition 2 (*Socialization and Adult Competence*). Early socialization to higher levels of knowledge, competence, and modern values or orientations creates higher levels of adult status and competence.

Proposition 3 (*Individual Competence and Social Progress*). The expansion of the number of skilled adults expands the complexity and wealth of society and social institutions.

Research on proposition 1 is rather clear-cut. Children and youth in schools learn a good deal more, and acquire more expanded social capacities than those not in school, even when background factors are controlled (see, e.g., Holsinger 1974; Plant 1965). The main problem in the research on this subject is the finding that the particular school students attend often seems to make little difference (see Jencks et al. [1972]; or the studies reviewed in Feldman and Newcomb [1969]). I return to this issue below; the point here is that something about participation in schools creates notable effects on all sorts of socialization—from knowledge to social values to status expectations.

Little direct empirical research has been done on proposition 3—the idea that changed people produce a changed social structure—though this kind of “demographic” explanation (Stinchcombe 1968) has been a main theme of sociological theories of social change. In recent decades some doubts have arisen, with a conservative fear that “overeducated” people create more social instability and breakdown than they do social development. There is no evidence of this, but the issue remains.

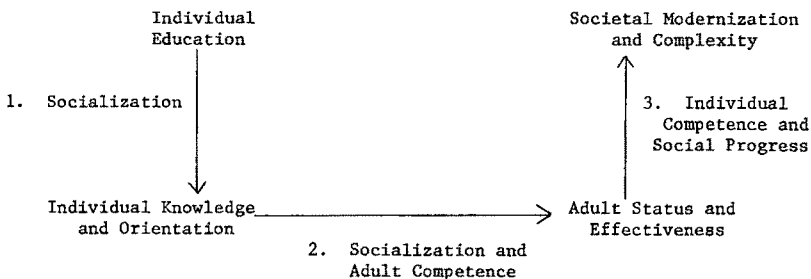


FIG. 1.—Traditional socialization theory



Proposition 2 has been one source of doubt about the whole model. Traditional socialization theory in sociology (and child development research) becomes an adequate account of social structure only if (a) socialized qualities remain with the person with some stability over long periods of time, and (b) such qualities predict adult effectiveness in roles. But current research on personal qualities often suggests low autocorrelations over time (see the review by Mischel [1971]). Many empirical studies suggest that the personal qualities schooling creates do not effectively determine occupational success, once occupational entry has been obtained (see the polemic review by Berg [1971]). Even if socialized qualities have fair stability and offer fair predictive power, it is unlikely that the product of these effects (which amounts to a very low overall effect) explains the high correlation of education with adult status.

Thus, socialization theory, as an account of educational effects on society, has one area of success and two of failure. On the positive side, schooling does predict, with other variables held constant, many of the outcomes of socialization. On the negative side, many of the measurable socialization outcomes of schooling have little long-run staying power or predictive power.<sup>2</sup> Also on the negative side, variations among schools in their socialization programs show small effects on outcomes—if schools socialize through the immediate experiences they provide schools providing different experiences should produce very different effects. The research literature provides little encouragement on this subject.<sup>3</sup>

#### INSTITUTIONAL THEORIES: ALLOCATION THEORY AS A LIMITED CASE

Traditional socialization theory defines education as an organized set of socializing experiences. It treats as peripheral the fact that modern educational systems are society-wide and state-controlled institutions. In discussions of socialization theory this property of educational settings barely appears (e.g., Wheeler 1966).

Partly in reaction to this limitation, but more in reaction to the empirical weakness of socialization theory and in polemic reaction to the earlier optimism about the socially progressive effects of education, allocation theories have been developed. It is argued that people in modern

<sup>2</sup> Socialization researchers, of course, continue to pursue the grail, looking for new properties of individual socialization that are stable and that do effectively predict long-run success. The search has been going on for a long time.

<sup>3</sup> A number of ideas have been suggested in defense of traditional theory: (1) we have not yet found or measured the relevant aspects of school structure; (2) schools tend to be random collections of teachers and thus to appear alike even though teaching is of great importance; (3) on the relevant properties—normative commitment and organization, or simply the time devoted to various topics—most schools in a country are very similar and thus have similar effects. I pursue a related, but more general, line below.

societies are allocated to adult roles on the basis of years and types of education, apart from anything they have learned in schools. Education is thus more a selector, sorter, and allocator than it is a socializer.

Education, in allocation theories, is a set of institutional rules which legitimately classify and authoritatively allocate individuals to positions in society. Allocation theories are limited in that they define only a few consequences of this system and consider effects mainly on the individuals being allocated, but they open up a broader range of institutional theories which are discussed below.

The power of the allocation idea arises from its obvious empirical validity. We all know that status positions in modern societies are assigned on the basis of education. Sometimes, as with civil service and professional positions (e.g., medicine, law, teaching), this is a matter of law. To teach in a high school one must have an educational credential. Whether one knows anything or not is less relevant. Often, rules about credentials are simply part of established organizational practice, as in the assignment of college and business-school graduates to managerial positions and of others to working-class jobs. Sometimes the whole process is informal, as in the inclination of juries and informal friendship groups to attend to the advice of their more educated members.

In any event, the relationship between education and social position—over and above socialization or learning—is quite direct. The line of research pursued by Blau and Duncan (1967) and Duncan, Featherman, and Duncan (1972) shows large direct effects of education on status attainment, sometimes with ability measures held constant. Education plays a direct causal role in occupational transition even late in the individual's career (Blau and Duncan 1967, chap. 5)—decades after any direct socialization effects must have decayed or become outmoded.

The basic idea is clear:

Proposition 4 (*Educational Allocation*). In modern societies, adult success is assigned to persons on the basis of duration and type of education, holding constant what they may have learned in school.

Educational allocation rules, that is, give to the schools social *charters* to define people as graduates and as therefore possessing distinctive rights and capacities in society (Meyer 1970a; see also Clark 1970). Thus the schools have power as an institutional system, not simply as a set of organizations processing individuals.

### Impact of Allocation Rules on Socialization

The polemic contrast between socialization and allocation ideas—education as a socializing process versus education as a status competition—has concealed the fact that the two are not really inconsistent. Further,

- allocation theory offers interesting and useful extensions of traditional socialization ideas.

Assume that educational allocation rules in fact hold in society. Students and members of their social networks (e.g., parents, peers, teachers, and counselors) are informed members of society—not simply passive objects of educational production—and know these rules with some accuracy. Graduates, of course, experience the rules through the distinctive experiences and treatments they receive in society. Now if we assume a most elementary idea of social psychology, that people adapt and are adapted by others to their actual and expected experiences, two major propositions follow:

Proposition 5 (*Chartering*). Students tend to adopt personal and social qualities appropriate to the positions to which their schools are chartered to assign them.

Proposition 6 (*Lagged Socialization*). Adults tend to adopt qualities appropriate to the roles and expectations to which their educational statuses have assigned them.

These propositions argue that education functions for individuals as a set of initiation ceremonies of great and society-wide significance (Ramirez 1975; Garfinkel 1956). These ceremonies transform the futures and pasts of individuals, greatly enhancing their value in all sorts of social situations. On the basis of their education, individuals are expected to treat themselves, and others are expected to treat them, as having expanded rights and competencies. Given allocation rules, educational labels are of the greatest significance for the social identity of individuals.

Proposition 1 and proposition 5 parallel each other and in many instances overlap in accounting for the same findings. It is often unclear to what extent given socialization effects are generated by the immediate socializing situation in a given school and to what extent they are produced by the institutional authority in which the school is embedded.

However, proposition 5, in contrast to proposition 1, offers a direct explanation of the most puzzling general research paradox in the sociology of American education. The level of schooling achieved has substantial effects on all sorts of personal qualities. But outcome variations among schools—even though these schools differ greatly in structure and resources—are very small. This finding shows up in studies of college effects (Feldman and Newcomb 1969), high school effects, and effects at the elementary school level. If schools have their socializing effects as ritually chartered organizations (Meyer 1970a; Kamens 1971, 1974) rather than as organized collections of immediate socializing experiences, then all schools of similar ritual status can be expected to have similar effects. Since for many personnel assignment purposes all American high schools (or colleges) have similar status rights, variations in their effects should be small.

But because all high schools are chartered to create "high school graduates"—a critical status in our society for college and occupational entry—all of them tend to produce marked effects on students. Proposition 5, in other words, argues that the most powerful socializing property of a school is its external institutional authority, derived from the rules of educational allocation, rather than its network of internal socializing experiences. Educators, who attend with great vigor to the accreditation of their schools, seem more aware of this process than do socialization researchers.

Thus, the educational contexts which vary substantially in the change and learning they produce in students do not usually include specific schools. They include contexts which are distinctively chartered:

1. Schooling per se. Life prospects (and hence changes in students) are vitally affected by being in an institution chartered as a school.

2. Type of school, when the types are differently chartered. Himmelweit and Swift (1969) and Kerckhoff (1975) show marked differences in outcomes for similar British students between grammar and secondary modern schools. American researchers have not looked for differences in expectations between initially similar students in general and vocational high schools. Some studies show distinct occupational effects of teachers, colleges, and engineering schools (Astin and Panos 1969).

3. Curriculum, when it is distinctively chartered. For instance, being in a college preparatory curriculum (in contrast to a vocational one) makes a considerable difference in the aspirations and expectations of American high school students (Alexander and Eckland 1975; see also Rosenbaum 1975).<sup>4</sup>

Proposition 6—the idea that education socializes adults by allocating them to expanded roles and role expectations—explains a second major paradoxical finding in the current sociology of education. The direct long-run effects of schools on graduates are thought to be rather moderate. But surveys of adults with regard to almost any dependent variable—attitudes, values, information, or participation—almost uniformly show that education plays a dominant role. For instance, Almond and Verba (1963) show with data on five countries that education is closely associated with political information, attitudes, and participation. Inkeles and Smith (1974) show the same result with data on six countries and are surprised to discover that the impact of education is much greater than that of work experience. Kohn's research (1969, and subsequently) shows exactly the same result, and again the author is surprised. But these findings make eminent sense. Educational allocation rules create a situation in which schooling is a fixed capital asset in the career of the indi-

<sup>4</sup> Intervening variables in all these effects would include the expectations of the students and those of their parents, teachers, counselors, and peers.

vidual, more durable than work or income, more stable than family life and relations, and less subject to market fluctuations than "real" property. Is it surprising that the attitudes and orientations of educated individuals continue to reflect such enhanced life prospects over long periods of time? They perceive these prospects and are surrounded by others who see them too.

Proposition 6 suggests that in explaining such long-run effects of education we do not need to look back to the details of the experience of socialization. Correlations between education and personal qualities can be maintained and increased by a structure or subsequent allocation which provides distinctive life experiences and anticipations for the educated. For instance, education can affect a person's sense of political efficacy by making him politically influential as well as by socializing him to a civic culture.

#### Further Implications of Allocation Theory

If taken seriously, and not simply used as a cynical critique of education, allocation theory would completely reorganize current research styles in the sociology of education. Allocation rules, unlike simple socialization effects, reign over both the students and the nonstudents, the educated and the uneducated, the graduates and those who never attended.

*Research implication 1: effects on nonstudents.*—Let us examine the following hypotheses.

Hypothesis 1. The creation of social rules allocating status and competence to graduates leads to the socialization of students for expanded social roles.

Hypothesis 2. But such rules *lower* the prospects of nonstudents, and in a sense desocialize them.

The more binding the allocation rules, the earlier and more convincingly are nonstudents committed to passive roles in society. This means that the society relying on credentials could well lower (below the previous floor) the modern competence of people of low education. Comparative contextual research is required to test this idea, since the independent variable is a property of the social system.

This argument has it that in a modern society education allocates its dropouts to failure. They (and their parents and friends) anticipate and adapt to this.

Hypothesis 3. Similarly, *subsequent* to the period of schooling, nongraduates are socialized through life experiences to the meaning of their failure just as graduates are socialized to the meaning of their success. The lagged differentials created by education should be greater the more firmly the principle of educational allocation is established.

Hypothesis 4. Those admitted to chartered educational organizations find

their prospects enhanced even before attendance, while those rejected find their prospects lowered. They adapt their personal qualities in anticipation, even prior to attendance. These differentials should be greater the stronger the allocative position of the school.

For example, Benitez (1973) finds that students admitted to a national elite high school in the Philippines seem to gain in self-esteem and "competence" even before their socialization begins. Wallace's (1966) data suggest a similar interpretation.

Comparative research on effects such as these should help distinguish allocation theory from traditional socialization ideas.

*Research implication 2: aggregate effects.*—A major implication of allocation theory is that inferences to the aggregate effects of education made from individual data on the basis of traditional socialization ideas are almost completely illegitimate. Researchers in the economics of education conventionally infer aggregate economic effects of education from income differentials between the educated and the less educated (see, e.g., the papers in Blaug 1968, 1969). It is assumed that these income differentials reflect real added value—the socialization gains of the educated. But if education is simply an allocation system, the gains of the educated may simply occur with equivalent losses for the uneducated. The expansion of education and educational allocation may have no effect on the aggregate product at all (Collins 1971).

Similarly, researchers on the political effects of education often infer that, because the educated occupy politically central positions, education must have helped create these positions (see the papers in Coleman 1965). But if education is simply a system of allocation, huge positional and attitudinal differences between the educated and the uneducated may exist with no aggregate effect at all. Igra (1976), in fact, shows (using Inkeles's data) that increases in the aggregate development of societies *lower* the political participation of individuals of given education (though the political information of individuals is found to be enhanced). Such "frog-pond effects" at lower levels of analysis are discussed by Davis (1966), Meyer (1970b), and Alexander and Eckland (1975).

The main arguments of allocation theory are added to those of socialization theory in figure 2. Allocation ideas are discussed with some frequency in the current literature, though their implications for research remain little explored.

### The Limitations of Allocation Theory

Allocation theories, by conceiving of education as an institution, add a good deal to traditional socialization theory. But they do so in a very narrow way.

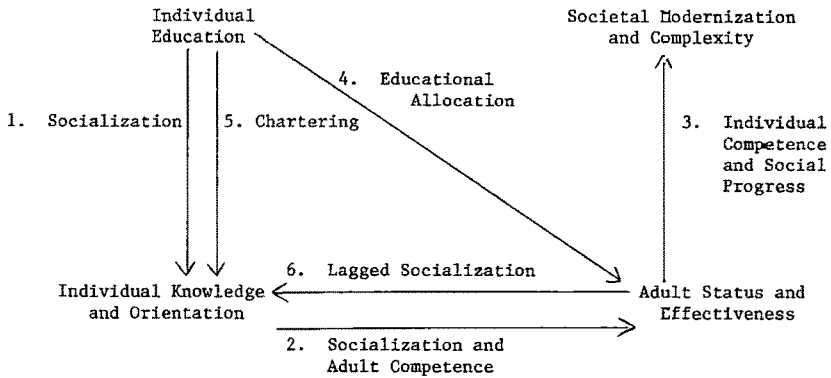


FIG. 2.—Allocation theory and its implications for socialization theory. (Pure allocation theory suggests that 3 is irrelevant. If a given set of adult competencies are simply allocated by education, no net societal gain in number of competent individuals need occur.)

Education is seen in these theories as possessing its power because it is built into the rules and understandings which guide all sorts of personnel allocation processes in society. But its impact is considered only for those individuals being processed by the system—the students and nonstudents who are being sorted. And even this impact is defined in a limited way: these people are understood to respond only to their own role prospects as they are affected by education. Does the fact that all the other individuals around him are being magically transformed by powerful initiation ceremonies have no effect on a given student? And has it no effect on other members of society?

The problem here is that allocation theories ordinarily see education as allocating individuals to a fixed set of positions in society: a distribution of positions determined by other economic and political forces. Bowles and Gintis (1976) propose slight additional effects—education is thought to socialize people to accept as legitimate the limited roles to which they are allocated. Spence (1973) and Thurow (1975) see some marginal gains to society through more efficient selection by education. But the main development of allocation theory defines the *structure* of society as little affected by education.

Allocation theory, then, can be seen as a special case of a more general argument according to which education constructs and alters the network of positions in society in addition to allocating individuals to these positions. We simply need to abandon the assumption that the positions to which education allocates people cannot be built, expanded, and altered by education itself.

It is becoming more common to speak of education as legitimating the structure of modern society (Bowles and Gintis 1976), or of modern so-

cieties as in some essential way "schooled" (Illich 1971). If we want to understand the societal impact of education, not just its effects on the careers of individuals, we need to understand what this means.

#### THE GENERAL CASE: LEGITIMATION THEORY

Allocation theory is a special case of institutional theories of educational effects: it considers the effects of education as an institution (*a*) only on the individuals being processed and (*b*) with the structure of society held constant. We now turn to the general case: theories of the institutional impact of education on social structure itself—on the behavior of people throughout society.

Modern extended and institutionalized systems of education build into society certain rules which actors take for granted, know others take for granted, and incorporate in their decisions and actions.<sup>5</sup> For instance, institutionalized educational systems create a situation in which social gatekeepers (e.g., personnel officers)—even if they read and believe Ivar Berg's book—nevertheless know that they must hire people on the basis of educational credentials.

Two closely related aspects of modern educational systems are relevant here as independent variables: (1) they are extended as systems of classification, categorizing entire adult populations by level and specialty; and (2) they are institutionalized, with their classifications often controlled by the state and enforced in daily life by rules about credentials written into law and applied in organizational practice. Almost everywhere, education is made compulsory and universal by national law, often in the national constitution (Boli-Bennett 1976). In most countries its structure is closely regulated by the nation-state (Ramírez 1973; Rubinson 1973).

Why does this occur? Whatever the economic origins of the process, the fact that it is usually accomplished and regulated by the state—unlike many aspects of economic development, which are left to individuals and subunits—suggests that its immediate origins lie in the political system: society as corporate organization (Swanson 1971) rather than as a system of exchange. *Formalized educational systems are, in fact, theories of socialization institutionalized as rules at the collective level.* The three core propositions used above to summarize traditional socialization theory *become* the structural basis of the educational system. Proposition 1—the idea that the schools teach critical skills and values—becomes institutionalized as the basic educational classification system: Education pro-

<sup>5</sup> Actors may also internalize these rules as personal commitments, but this is less important—the critical aspect is that they internalize them as social facts and social realities (institutions which rely on personal beliefs, or even permit the question of personal beliefs to be relevant in social action, are less highly legitimated in important senses than are those which operate as realities).



- ceeds in a sequence (irreversible by ascriptive definition) from kindergarten through postdoctoral study and covers a defined series of valued substantive topics. The student is a "high school graduate" and has had compulsory units of history and English and mathematics. It is an institutionalized doctrine, since for many purposes one must treat the student as having acquired this knowledge by virtue of the units or credits completed, not by direct inspection. Proposition 2—the idea that schooled qualities are carried into adult effectiveness—is institutionalized in the basic rules for employing credentialed persons which dominate personnel allocation in modern society. If one hires an executive, a civil servant, or a teacher one must inspect educational credentials—it is optional whether one inspects the person's competence. A teacher or a doctor who graduated from school in 1930 is still frequently treated as a socially and legally valid teacher or doctor. Proposition 3—the idea that educational allocation creates social progress—is institutionally embedded in our doctrines of progress: it consists of modernity, professionalization, and rationalization. The possession of the best certified and educated people is a main index of the advanced status of a hospital, a school, often a business organization, and indeed a society itself.

Educational systems themselves are thus, in a sense, ideologies. They rationalize in modern terms and remove from sacred and primordial explanations the nature and organization of personnel and knowledge in modern society. They are, presumably, the effects of the reorganization of modern society around secular individualism which is a main theme of Marx and Weber. Our problem here, however, is to discuss their effects.<sup>6</sup>

### Legitimizing Effects of Expanded and Institutionalized Education

Legitimizing effects of education can be discussed in four general categories created by the intersection of two dichotomies. First, education functions in society as a legitimating *theory of knowledge* defining certain types of knowledge as extant and as authoritative. It also functions as a *theory of personnel*, defining categories of persons who are to be treated as possessing these bodies of knowledge and forms of authority.

Second, education validates both *elites* and *citizens*. Discussions of the legitimating function of education often emphasize only its role in supporting elites and inequality (e.g., Bowles and Gintis 1976; Carnoy 1972). But the overwhelmingly dominant kind of education in the modern world

<sup>6</sup> The discussion which follows deals exclusively with the *effects* of institutionalized education on other aspects of society. Obviously, important causal effects also run the other way (see Meyer and Robinson [1975] for a review). Empirically disentangling the reciprocal effects requires data on societies over time.

Education as an Institution

	Elite Education	Mass Education
Education as Theory of Knowledge	1. The Authority of Specialized Com- petence	3. The Universality of Collective Reality
Education as Theory of Personnel	2. Elite Definition and Certification	4. The Extension of Membership: Nation-building and Citizenship

FIG. 3.—Types of legitimating effects of education

is mass education (Coombs 1968), closely tied to the modern state and notion of universal citizenship (Marshall 1948; Bendix 1964; Habermas 1962).

These two distinctions define four types of legitimating effects of education, as specified in figure 3. I discuss them in turn.

1. *The Authority of Specialized Competence.* Education does not simply allocate people to a fixed set of positions in society. It expands the authoritative culture and the set of specialized social positions entailed by this culture. Thus the creation of academic economics means that new types of knowledge must be taken into account by responsible actors. The creation of psychiatry means that former mysteries must now be dealt with in the social organization. The creation of academic programs in business management brings arenas of decision making from personal judgment, or luck, to the jurisdiction of rationalized knowledge. Social problems call for human-relations professionals (occasionally even sociologists). Safety or environmental problems call for industrial or environmental engineering.

The point here is that, quite apart from the immediate efficacy of these bodies of knowledge, they are authoritative and must be taken into account by actors at the risk of being judged negligent or irrational. The business manager who plans by the seat of his pants—unblessed by economic projections—has no excuse for ignoring the best advice. The political leader who sees social problems as beyond analysis or cure is reactionary and primeval. The emotionally disturbed person who rejects psychiatry is displaying irrationality.

Thus the knowledge categories of the educational system enter authoritatively into daily life. Mysteries are rationalized, brought under symbolic control, and incorporated into the social system. Society and its subunits are buffered from uncertainty (Thompson 1967):

Proposition 7. The expansion (and institutionalization) of education expands the number of functions that are brought under social control and that responsible actors must take into account.<sup>7</sup>

2. *Elite Definition and Certification.* Education as an institution creates and defines particular categories of elite personnel. This has two aspects. (a) Education consists of allocation rules and initiation ceremonies designating which persons possess the authority and competence for various elite roles. This is the core idea of allocation theory. (b) But institutionalized education also defines the nature and authority of the elite roles themselves—helping to create the categories of personnel as well as to designate the particular occupants of these categories. In this way, expanded modern educational systems function as a personnel theory in society, justifying in modern cultural terms the expansion and specialization of modern elites.

Education, that is, not only creates “economic knowledge” which must be taken into account by rational actors. It is also a structure helping to create the role of economist, to justify economists’ authority claims in society, and to define precisely who is an economist. Education thus creates, not only psychiatry, but psychiatrists; not only modern management ideology, but M.B.A.’s. The rational actor must take into account medical knowledge, and to do so he must consult a doctor. Thus, the modern organizational structure of society incorporates legitimated bodies of knowledge by incorporating the designated personnel.<sup>8</sup>

We take too narrow a view if we see this process as involving only a few specialized occupations. The most important rules concerning credentials are more general: the set of rules which connect the educational status of *college graduate* (and *high school graduate*) with all sorts of formal and informal elite positions. These rules define a generalized body of elite knowledge and specify its legitimate carriers.

It now becomes clear why views of educational allocation as “zero-sum”—allocating a fixed set of social statuses—are wrong. Education helps *create* new classes of knowledge and personnel which then come to be incorporated in society:

<sup>7</sup> This assertion, incidentally, parallels an idea of Schumpeter (1950, chap. 12) about the way in which the intellectual optimism of modern capitalistic society generates its own institutionalization and destruction. The intellectuals rationalize more and more social functions, which are then brought under collective social and political control and removed from the market.

<sup>8</sup> Imagine, for example, the consequences that would flow from the rise of routinely accredited university programs and degrees in astrology. Organizations would incorporate astrologers, the state would fund their programs and consult or incorporate them. Of course a justificatory literature would grow. The same basic processes have gone on with many occupational groups.

Proposition 8. The expansion (and institutionalization) of education expands the number of specialized and elite positions in society. It defines and justifies their occupancy by particular people.<sup>9</sup>

The point here is that institutionalized education does more than simply allocate some to success and others to failure. The educated learn to claim specialized functions and to legitimate the specialized functions of others. The less educated learn that they are part of a social world of rights and duties elaborated far beyond the traditional community. This is one of the core meanings of the modern social status *citizen*.

3. *The Universality of Collective Reality*. Mass education creates a whole series of social assumptions about the common culture of society and thus expands the social meaning of citizenship, personhood, and individuality (modern ideas, all). It establishes a whole series of common elements for everyone.<sup>10</sup> (a) It creates the assumption of a national language or languages and defines universal literacy. (b) It reifies a given national history. (c) It constructs a common civic order—common heroes and villains, a common constitutional and political order with some shared cultural symbols and with legitimate national participation. (d) It validates the existence of a common natural reality through science and a common logical structure through mathematics and in this way constructs a myth of a common culture intimately linked to world society. (e) It constructs broad definitions of citizen and human rights as part of the modern world view.

Regardless of what people actually learn in school about their language and culture, nationally institutionalized mass education creates the assumptions of a national culture. For many purposes, both elite and citizen actors must take them into account:

Proposition 9. The expansion (and institutionalization) of education expands the content and jurisdiction of the elements taken for granted as part of collective reality.

4. *The Extension of Membership: Nation-Building and Citizenship*.

<sup>9</sup> This proposition is impossible in conceptions of social status as simply a rank position and thus as fixed in sum. But there is no reason to assume that the total amount of status (or for that matter power) in society is fixed. Independent of their ranks, statuses (and whole status distributions) may vary in the expansion of their substantive rights and powers. I have argued above that education expands the status rights attached to many positions in society, without necessarily altering the rank structure. This conception of status reflects Weber's original formulation.

<sup>10</sup> I provide here a conventional list of the putative effects of mass education. But my argument is that, actual effects aside, they enter into social life as taken for granted assumptions. Many Americans are not literate in the national language. But we treat each other, expect elites to treat us, and organize our public life as if we all were. According to proposition 5, the existence of these effects as social assumptions greatly increases the likelihood that the schools actually produce them.

Beyond defining and extending national culture, mass education defines almost the entire population as possessing this culture, as imbued with its meanings, and as having the rights implied by it. Mass education defines and builds the nation (Marshall 1948; Bendix 1964). It allocates persons to citizenship—establishing their membership in the nation over and above various subgroups. And it directly expands the definition of what citizenship and the nation mean and what obligations and rights are involved. Mass education helps create a public: as education expands, ideas about public opinion as a vital force in society rise (Habermas 1962; Bergesen 1977). Individuals come to be defined as possessing the competencies and the moral orientations to participate in an expanded collective life:

Proposition 10. Mass education expands the number of persons seen as possessing human and citizenship responsibilities, capacities, and rights. It also expands the prevailing definitions of these roles and their associated qualities.

In expanding both the meaning of citizenship and the set of persons who are seen as citizens, education plays a dual role. Certainly it opens up new possibilities for citizens—in particular, new claims for equality which can be made on society. It also, however, redefines individuals as responsible subordinate members (and agents) of the state organization, and opens them to new avenues of control and manipulation.

### Research Designs in Legitimation Theory

Legitimation ideas propose societal effects of education. They can be studied in several ways.

1. Most directly, data comparing societies over time can be examined. For instance, is it true, in comparing societies, that those with expanded mass education tend to create sooner and more completely the welfare, policing, and participatory apparatuses of citizenship?

2. The same questions can be looked at with time-series data pertaining to a single society. For example, what has been the effect of the expansion of higher education in the United States, independent of other factors, on the number of types of professionals who have privileged status (as "expert witnesses") in the courts?

3. The same questions can be studied at the individual level as well. Legitimation theory argues for the effects of the extension and institutionalization of national educational systems on the judgments, perceived realities, and actions of *given* individuals—ordinary persons, rule makers, and critical social gatekeepers. Studies can therefore compare similar individuals in societies differing in educational structure. Do persons of given education, in more schooled societies, see personal and social problems as more likely to require educated expertise? Do they see, as I ar-

gued above, a larger number of social functions as requiring explicit (and undoubtedly educated) collective social management? Comparative survey research can help examine such questions.

4. It is also possible to approach these questions experimentally. Education, it is argued, restructures social reality for given individuals. To explore this, subjects can be confronted with hypothetical societies, similar in many respects but differing in the expansion and authority of education. Would subjects be more likely to propose to use economists and other social scientists to help with business or political planning if we describe for them a society in which elite education is highly developed and institutionalized? Subjects might even attribute authority to nonexistent professions if those are described as rooted in educational programs.

These research design approaches can all be used to deal with the following central empirical hypotheses of legitimation theory.

1. Basing a particular elite in the educational system helps create and expand its authority. One can study empirically the differential rise in societies of personnel workers, social scientists, physicians, or psychiatrists as these groups are affected by differential educational institutionalization. This can be done with comparative, survey, or experimental techniques.

2. More generally, expanded elite educational systems produce and support *more* and larger elites with jurisdiction over more social functions. We can test this hypothesis by seeing whether more problems requiring collective action are defined in societies with expanded elite education, and by seeing whether the management of such problems is more likely to be reserved to educated elites in such societies.

3. Mass education expands the national culture. Both elites and masses, in societies with more mass education, should be more likely to perceive widespread literacy, attention to public problems, information, and involvement. This should hold true even when the actual levels of these variables are held constant. Mass education is an institution, and like all institutions creates forms of pluralistic ignorance: it supports the widespread social assumption of an informed and attentive public. In expanding the national culture, mass education also creates and expands the assumption of homogeneity. In societies with more mass education, both masses and elites should be found to perceive more common interests and ideas in the population and less conflict and diversity. This should hold even when actual diversity is held constant.

4. Mass education, similarly, expands citizenship, both in size and content. Elites, in societies with more mass education, should be found to perceive masses as making more demands, having more rights, and posing more threats than in other societies. Elites planning new regimes in such societies should be found to employ more strategies of control through mobilization rather than through traditional authoritarianism. They should

also attend to the creation and manipulation of "public opinion." Mass education may be one of the elements supporting the modern "activist" version of the classic military coup and regime. Again, one can study such a process comparatively, with survey data, or experimentally (presenting subjects with hypothetical societies).

These research suggestions make clear the nature of legitimation effects: Modern educational systems formally reconstruct, reorganize, and expand the socially defined categories of personnel and of knowledge in society. They expand and rationalize the social realities that enter into the choices of the socialized and the unsocialized, the allocated and the unallocated. Education is, as has often been noted, a secular religion in modern societies: as religions do, it provides a legitimating account of the competence of citizens, the authority of elites, and the sources of the adequacy of the social system to maintain itself in the face of uncertainty.<sup>11</sup>

### The Impact of Educational Legitimation on Allocation and Socialization

The socializing impact of education as an institution is discussed above (propositions 5 and 6) in the review of the allocation theory version of the larger idea of legitimation. The intervening discussions make necessary two extensions in the arguments presented there:

1. It is now clear that rules of educational allocation are not simply arbitrary social constructions which happen to have power over people. These rules are part of the basic institutional ideology of modern society: they represent equity, progress, and technical sophistication. As part of a larger institutional system, that is, the rules of educational allocation are highly *legitimate*, not merely instances of the exercise of power. This legitimacy intensifies the operation of rules of educational allocation, and intensifies the effects of these rules on individuals being socialized and allocated:

Proposition 11. The more institutionalized the modern system of education, the more intensified the causal relationships of allocation and socialization.

<sup>11</sup> Modern education not only expands each society structurally; it also brings societies into closer organizational similarity with each other. Societies come to be made up of more and more similar elites—often in professional communication with each other—and masses with more and more shared social rights. This organizational homogeneity means that information—and exploitation—can proceed very rapidly. New ideas and techniques are not *alien*. They are the stock-in-trade of an already incorporated profession and can thus be adopted with less resistance. So, in the modern world, the presence of locally controlled, but organizationally similar, educational systems in almost all nation-states makes possible the rapid cultural penetration of techniques (and political revolution). And it makes possible new kinds of dependence (e.g., a "brain drain").

Educational allocation rules become more common, and their socializing consequences increase in intensity, under conditions of high educational institutionalization. The lagged socialization of the allocated (proposition 6) becomes, not simply an adaptation to their increased power, but an affirmation of their authority and an account of a legitimate moral biography. Similarly, the process by which students acquire chartered qualities (proposition 5) takes on additional meaning because of its legitimacy. Students and nonstudents are learning more than their own futures. They are also learning that the practical categories and topics of education give legitimate meaning to these futures (see also Bowles and Gintis 1976). For instance, the college student learns a little sociology because he is taught it (traditional socialization) and because he knows graduates may be expected to know a bit about it (chartering). Both processes are intensified by the legitimating reality of sociology: students (and nonstudents) learn that it *exists* as a body of knowledge and a personnel category, entirely over and above their personal acceptance of the utility of the field. Thus students acquire their sociology with a dutiful passivity which reflects the understanding that whether or not they accept this discipline their degrees—valid throughout society—will reflect so many units of sociology.

Thus the objectified moral authority of the schools—over and above their raw power—undoubtedly intensifies socialization over and above that found in routine *training* organizations (Bidwell and Vreeland 1963).

2. In broader versions of institutional theory than allocation ideas, the effects of education are no longer fixed in sum: education may expand and alter the role structure of society. This means that there is no reason to believe that the socializing effects of allocation rules would be fixed in sum as is implied by hypotheses 1–3 above, in "Further Implications of Allocation Theory." If education expands the status order, anticipatory gains for students and their socialization consequences do not need to be balanced by losses for nonstudents. The new roles being created can simply be added to the status structure and to the socialization process. More commonly, the creation of a given new elite role also creates expanded rights and duties for others. Thus the expansion of medical authority in modern societies involves creating and expanding the role of doctor. But other people do not simply become nondoctors—they become patients. Education expands roles and sets them into proper relation with the rest of the society.

Once institutionalized education is seen as a legitimating system—not just a mechanism for allocating fixed opportunities—it can have many net consequences on both allocation and socialization of people being processed, just as on the rest of society.



• The Impact of Educational Legitimation on Educational Organizations

The legitimating effect of educational organizations—but also much of their socializing and allocating power—is derived from their highly institutionalized status in society. Operating at the institutional level as an authoritative theory of personnel and knowledge in society, the schools constitute a crucial ritual system: a system of initiation ceremonies (personnel) and of classifications of information (knowledge).

This makes it clear why schools often seem to act as ritual organizations, sacrificing “effectiveness” for classificatory rigidity (Meyer and Rowan 1975; Kamens 1977). Their larger social effectiveness (and their claim to resources) inheres precisely in this ritual structure: the apparatus of classes and levels and degrees and subjects. By emphasizing their formal ritual structures, schools maximize their links to their main source of authority, their main resources, and quite possibly their main effectiveness. Dramatizing their structures as socially legitimated and legitimating initiation ceremonies informs students (and others) both about the pay-offs to which they can adapt and about the fact that those payoffs are highly proper, deriving from the core meaning and values of society (Clark 1970). Ritualism, thus, by the process stated in proposition 11, reinforces the immediate effectiveness of schools in dealing with students.

*Summary of legitimation theory.*—Legitimation theory suggests two general ideas concerning the effects of schooling. First, institutionalized education, as a theory of personnel and knowledge, affects society directly, apart from the training and allocation of students. Second, institutionalized education creates and intensifies the individual effects of socialization and allocation. In figure 4 these two main themes are added to the explanatory structure presented earlier.

## CONCLUSION

Schools may teach people useful skills and values. Whether they do or not in particular cases, they certainly *allocate* people to positions of higher social status, and this affects the anticipations and socialization of the students (and nonstudents) as well as the experience and later socialization of the graduates (and nongraduates).

The allocating power of the schools is one aspect of their status as social institutions creating and validating categories of personnel and knowledge. The schools increase the number and legitimacy of these categories—far beyond levels possible with more primordial myths of the origins of personnel and knowledge—and thus expand the whole rationalized

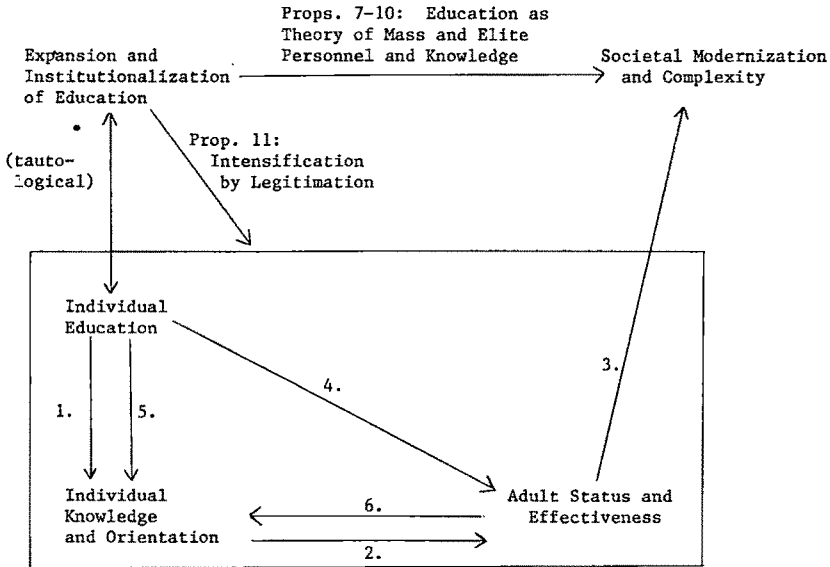


FIG. 4.—Legitimation effects of education

modern social structure. These legitimating effects of schools reconstruct reality for everyone—the schooled and the nonschooled alike. They also intensify the effects of allocating and socializing processes.

So a student is in a position of experiencing (*a*) the immediate socializing organization, (*b*) the fact that this organization has the allocating power to confer status on him, and (*c*) the broader fact that this allocation power has the highest level of legitimacy in society. The education he receives has a very special status and authority: its levels and content categories have the power to redefine him legitimately in the eyes of everyone around him and thus take on overwhelming ceremonial significance.

Research on such questions must examine the effects of education as *an institution*, considering effects of variables quite beyond the level of the classroom, the peer group, or the school as an organization. Either experimentally or with cross-societal (or time series) analyses, we need to consider the contextual effects of variations in the extension and institutionalization of education on the perspectives of students and nonstudents, graduates and nongraduates, citizens and elites. If education is a myth in modern society it is a powerful one. The effects of myths inhere, not in the fact that individuals believe them, but in the fact that they “know” everyone else does, and thus that “for all practical purposes” the myths are true. We may all gossip privately about the uselessness of education, but in hiring and promoting, in consulting the various magi of our time,

and in ordering our lives around contemporary rationality, we carry out our parts in a drama in which education is authority.

## REFERENCES

- Alexander, K., and B. Eckland. 1975. "Contextual Effects in the High School Attainment Process." *American Sociological Review* 40 (June): 402-16.
- Almond, G., and S. Verba. 1963. *The Civic Culture*. Princeton, N.J.: Princeton University Press.
- Astin, A., and R. Panos. 1969. *The Educational and Vocational Development of College Students*. Washington, D.C.: American Council on Education.
- Bendix, R. 1964. *Nation-Building and Citizenship*. New York: Wiley.
- Benitez, J. 1973. "The Effect of Elite Recruitment and Training on Diffuse Socialization Outcomes." Doctoral dissertation, Stanford University.
- Berg, I. 1971. *Education and Jobs*. Boston: Beacon.
- Bergesen, A. 1977. "Political Witch Hunts: The Sacred and the Subversive in Cross-National Perspective." *American Sociological Review* 42 (April): 220-33.
- Bidwell, C., and R. Vreeland. 1963. "College Education and Moral Orientations." *Administrative Science Quarterly* 8 (September): 166-91.
- Blau, P. M., and O. D. Duncan. 1967. *The American Occupational Structure*. New York: Wiley.
- Blaug, M., ed. 1968, 1969. *Economics of Education*. Baltimore: Penguin.
- Boli-Bennett, J. 1976. "The Expansion of Constitutional Authority in Nation-States, 1870-1970: A Quantitative Assessment." Paper read at the annual meeting of the Pacific Sociological Association, San Diego, April. Mimeographed. Stanford, Calif.: Department of Sociology, Stanford University.
- Bowles, S., and H. Gintis. 1976. *Schooling in Capitalist America*. New York: Basic.
- Carnoy, M., ed. 1972. *Schooling in a Corporate Society*. New York: McKay.
- Clark, B. 1970. "The College as Saga: Historical Inquiry in the Sociology of Education." Paper read at the annual meeting of the American Sociological Association, Washington, D.C., August. Mimeographed. New Haven, Conn.: Department of Sociology, Yale University.
- Coleman, J., ed. 1965. *Education and Political Development*. Princeton, N.J.: Princeton University Press.
- Collins, R. 1971. "Functional and Conflict Theories of Educational Stratification." *American Sociological Review* 36 (December): 1002-18.
- Coombs, P. 1968. *The World Educational Crisis*. New York: Oxford University Press.
- Davis, J. A. 1966. "The Campus as a Frog Pond." *American Journal of Sociology* 72 (July): 17-31.
- Duncan, O. D., D. L. Featherman, and B. Duncan. 1972. *Socioeconomic Background and Achievement*. New York: Seminar.
- Feldman, K. A., and T. H. Newcomb. 1969. *The Impact of College on Students*. San Francisco: Jossey-Bass.
- Garfinkel, Harold. 1956. "Conditions of Successful Degradation Ceremonies." *American Journal of Sociology* 61 (March): 420-24.
- Habermas, J. 1962. *Strukturwandel der Öffentlichkeit*. Koblenz: Neuwied.
- Himmelweit, H., and B. Swift. 1969. "A Model for the Understanding of School as a Socializing Agent." Pp. 154-81 in *Trends and Issues in Developmental Psychology*, edited by P. Mussen, J. Langer, and M. Covington. New York: Holt, Rinehart & Winston.
- Holsinger, D. 1974. "The Elementary School as Modernizer: A Brazilian Study." Pp. 24-46 in *Education and Individual Modernity in Developing Countries*, edited by A. Inkeles and D. Holsinger. Leiden: Brill.
- Igra, A. 1976. "Social Mobilization, National Context, and Political Participation." Doctoral dissertation, Stanford University.
- Illich, I. 1971. *Deschooling Society*. New York: Harper & Row.

- Inkeles, A., and D. H. Smith. 1974. *Becoming Modern: Individual Change in Six Developing Countries*. Cambridge, Mass.: Harvard University Press.
- Jencks, C., et al. 1972. *Inequality: A Reassessment of the Effect of Family and Schooling in America*. New York: Basic.
- Kamens, D. 1971. "The College 'Charter' and College Size: Effects on Occupational Choice and College Attrition." *Sociology of Education* 44 (Summer): 270-96.
- . 1974. "Colleges and Elite Formation: The Case of Prestigious American Colleges." *Sociology of Education* 47 (Summer), 354-78.
- . 1977. "Legitimizing Myths and Educational Organization: The Relationship between Organizational Ideology and Formal Structure." *American Sociological Review* 42 (April): 208-19.
- Kerckhoff, A. C. 1975. "Patterns of Educational Attainment in Great Britain." *American Journal of Sociology* 80 (May): 1428-37.
- Kohn, M. 1969. *Class and Conformity: A Study in Values*. Homewood, Ill.: Dorsey.
- Marshall, T. H. 1948. *Citizenship and Social Class*. New York: Doubleday.
- Meyer, J. 1970a. "The Charter: Conditions of Diffuse Socialization in Schools." Pp. 564-78 in *Social Processes and Social Structures*, edited by W. R. Scott. New York: Holt, Rinehart & Winston.
- . 1970b. "High School Effects on College Intentions." *American Journal of Sociology* 76 (July): 59-70.
- . 1973. "Theories of the Effects of Education on Civic Participation in Developing Societies." *SEADAG Papers Series*. New York: Asia Society.
- Meyer, J., and B. Rowan. 1975. "Notes on the Structure of Educational Organizations." Paper read at the annual meeting of the American Sociological Association, San Francisco, August. Mimeographed. Stanford, Calif.: Department of Sociology, Stanford University.
- Meyer, J., and R. Rubinson. 1975. "Education and Political Development." *Review of Research in Education*, vol. 3, pp. 134-62.
- Mischel, W. 1971. *Introduction to Personality*. New York: Holt, Rinehart & Winston.
- Plant, W. 1965. "Longitudinal Changes in Intolerance and Authoritarianism for Subjects Differing in Amount of College Education over Four Years." *Genetic Psychology Monographs* 72 (November): 247-87.
- Ramirez, F. 1973. "Societal Corporateness and the Nationalization and Expansion of Educational Systems." Paper read at the annual meeting of the American Sociological Association, New York, August. Mimeographed. Stanford, Calif.: Department of Sociology, Stanford University.
- . 1975. "Creating Members: A Longitudinal Cross-national Analysis." Paper read at the Comparative and International Education Society meeting, San Francisco, March. Mimeographed. San Francisco: Department of Sociology, San Francisco State University.
- Rosenbaum, J. 1975. "The Stratification of Socialization Processes." *American Sociological Review* 40 (February): 48-54.
- Rubinson, R. 1973. "The Political Construction of Education: Conditions for the Creation of Membership in Political Society." Paper read at the annual meeting of the American Sociological Association, New York, August. Mimeographed. Stanford, Calif.: Department of Sociology, Stanford University.
- Schumpeter, J. 1950. *Capitalism, Socialism and Democracy*. New York: Harper.
- Spence, M. 1973. "Job Market Signalling." *Quarterly Journal of Economics* 87 (August): 355-75.
- Stinchcombe, A. 1968. *Constructing Social Theories*. New York: Harcourt.
- Swanson, G. 1971. "An Organizational Analysis of Collectivities." *American Sociological Review* 36 (August): 607-23.
- Thompson, J. D. 1967. *Organizations in Action*. New York: McGraw-Hill.
- Thurow, L. 1975. *Generating Inequality*. New York: Basic.
- Wallace, W. L. 1966. *Student Culture: Social Structure and Continuity in a Liberal Arts College*. Chicago: Aldine.
- Wheeler, S. 1966. "The Structure of Formally Organized Socialization Settings." In *Socialization after Childhood*, edited by O. G. Brian, Jr., and S. Wheeler. New York: Wiley.

# **Revolution and the Rebirth of Inequality: A Theory of Stratification in Postrevolutionary Society<sup>1</sup>**

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This paper offers a theory and an explicit mathematical model of a peasant revolution's effects on inequality and status inheritance. We predict that, when an exploited peasantry revolts and overthrows the traditional elite, (1) in the short run, peasants are better off, and both inequality and status inheritance decline. But human capital becomes more valuable, and revolution does not benefit the poorest of its supporters as much as those who were better off before. (2) In the long run, peasants still benefit. But revolution proves new opportunities for those with education, ability, luck, or other resources; therefore economic inequality, educational inequality, and status inheritance grow steadily among the peasantry. In many circumstances, inequality and status inheritance will also grow in the society as a whole and may eventually exceed their prerevolutionary levels. The theory applies not only to revolutions but also to the long-run effects of any economic or social change that reduces exploitation or increases economic opportunities.

Humanity left to its own devices does not necessarily re-establish capitalism, but it does re-establish inequality. The forces tending toward the creation of new classes are powerful.

[MAO TSE-TUNG, 1965]

Probably the most shattering and dramatic transformation of human society is the violent overthrow of traditional elites by a revolution of the oppressed masses. Most such revolutions have occurred in the mainly rural, peasant-dominated societies in which the majority of mankind has lived. Local landlords have been dispossessed and chiefs deposed ever since exploitative governments arose in advanced agrarian societies. Large-scale peasant revolutions appear throughout history but particularly in the modern period

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(e.g., in the Peloponnese in 227 B.C., England in 1381, France in 1789, Mexico in 1910, Russia in 1917, China beginning in 1921, Bolivia in 1952, and Cuba in 1958). For the old elite, the consequences of a successful revolution are clear. But for the mass of ordinary people, they are not. Revolutions generally promise peasants justice and at least some relief from rent, taxes, usury, and traditional restrictions on their movement. They surely benefit from that relief and, at least in the short run, from the more open and equalitarian society that results. But whether some benefit more than others and why is unclear. The long-term effects are even less clear. Does equality endure, or does inequality reemerge, perhaps in new and more virulent forms? Does social mobility grow or decline? Who benefits from the forces unleashed by revolution and how? In this paper we propose a theory about the effects of revolution on inequality and status attainment. We show that, in the short run, a revolution can be expected to reduce economic inequality and status inheritance, as anticipated, but also to benefit its well-to-do supporters more than its poorer ones and to make human capital more important for all. In the long run, peasants will still be better off, but stratification reemerges. Economic inequality and status inheritance grow steadily, in some circumstances eventually exceeding their prerevolutionary levels. We first present the theory informally and then develop an explicit mathematical model of the underlying process.

### SCOPE

Our theory deals with the predominantly rural, premodern, peasant-dominated societies in which most revolutions have occurred.<sup>2</sup> We claim that it applies to any revolution meeting the following conditions: (1) a politically and economically dominant traditional elite has previously been able to expropriate a large fraction of the surplus produced by peasants (e.g., by control over land, forced labor, discriminatory taxation, usury, or through monopoly privileges in agriculture, trade, or government), and (2) the revolution has liberated peasants from their traditional exploitation (e.g., by destroying the old elite's economic privileges, reducing taxes or interest rates, redistributing land, allowing freer access to opportunities in farming and business, expropriating or destroying accumulated capital). We call this combination of events a radical revolution, and we limit consideration of short-term effects to revolutions of this kind.

The predictions about long-term effects (Hypotheses 4 through 8 below)

<sup>2</sup> We use the term "peasant" broadly, to include not only the ideal type, "rural cultivators whose surpluses are transferred to a dominant group of rulers that uses the surplus both to underwrite its own standard of living and distribute the remainder to groups in society that do not farm but must be fed for their specific goods and services in turn" (Wolf 1966, pp. 3-4), but also farm laborers and other landless rural workers, small traders, and other members of the exploited rural masses.

- \* are more general; they apply not only to radical revolutions but also to any social changes which reduce exploitation or increase economic opportunities. Such changes include economic "revolutions" which liberate people from stifling restrictions or increase their productivity by technical means: specifically, the gradual changes which destroyed feudalism, the early phases of the Industrial Revolution, the Green Revolution in agriculture, the introduction of cash crops or a market economy in nonmarket societies, and the like. They also include political changes which have increased opportunities for blacks and women in the United States, untouchables in India, the Ainu in Japan, and other minorities.

We deal with the apolitical mass of the rural and small-town population, deliberately excluding the revolution's political and military leaders, the revolutionary intelligentsia, and other revolutionary elites. Nonetheless, their ideology and the policies of the government they establish are extremely important. The peasants' goals will generally be what they regard as simple justice—personal (or communal) control over their land, minimal taxation, and the right to sell their produce on the open market. That leads to a predominantly market economy with peasants (or peasant communities) functioning essentially as small capitalist entrepreneurs accumulating income and property. In that case our model applies with full force. But the revolutionary elite may oppose the return to a classical peasant economy, instead pursuing more radical and collectivist goals. If successful this will mean, as Wolf (1966, 1969) and others have noted, the end of a conventional peasantry and the rise of a rural working class, usually employed in state-owned communal farms. Our model still applies in this case, but the changes will be slower and somewhat attenuated, in ways we specify.

## SHORT-TERM EFFECTS

### Inequality

We are dealing with radical revolutions which, by definition, at least partly free peasants from their traditional exploitation and thereby improve their economic position at the expense of the traditional elite. Transferring resources from the rich to the poor clearly reduces inequality (as we define it)<sup>3</sup>.

<sup>3</sup> We have in mind the notion that inequality is greater where differences between rich and poor are large and widespread, i.e., where the differences between one person and another are large on the average. The standard deviation is a familiar measure of this aspect of inequality and is now widely used to measure inequality in education, occupation, and income (e.g., Jencks et al. 1972; Mincer 1974); it also links naturally with the formal theory that underlies our predictions. In the past, inequality was more commonly measured by the Gini or other coefficients based on the Lorenz curve. Like the standard deviation, the Gini is a measure of variance, but it is based on the absolute value of the difference between individuals' scores rather than the standard deviation's squared difference; the two are comparable and monotonically related (Paglin 1975, p. 601). The Gini adjusts for differences in the mean, while the standard deviation does not. Thus, for example, if everyone's

in the society as a whole, which is of course typically one of the revolution's main goals. In practice, the redistribution is often extensive. Radical revolutions often redistribute land, the fundamental fixed asset in peasant societies, and hence redistribute income. They usually redistribute liquid capital as well, expropriating or destroying rents, savings, debts, pensions, and monopolies; such redistribution reduces inequality, especially in the rare cases where the proceeds are directly redistributed to the poor. In many revolutions the expropriation is partly inadvertent. Property is abandoned during the crisis, and the collapse of the old government often leads to dramatic inflation which destroys the value of savings, salaries, and rents; these are more damaging to the old rich. Taxes and rents which fall most heavily on the poor are often reduced or eliminated. In precapitalist societies, labor taxes extracted by the state or by landlords are often the main form of exploitation, and abolishing them increases the time peasants have to work for their own benefit, leading to further equalization (e.g., Burke 1971, pp. 317-33; Klein 1969). In modern times, revolutionary governments usually establish new health, education, and welfare programs which result in major transfers of resources to the poor and further reduce inequality.

*Human capital.*—In the short run, we predict that radical revolutions will make human capital more valuable. In practice the range of opportunities for utilizing education, knowledge, technical skills, and other forms of human capital increases greatly. (1) Especially in previously isolated and traditional rural areas, rapid changes in marketing and the expansion of the money economy upset traditional economic arrangements and reward the adaptability, rationality, and cosmopolitan orientations that education provides (e.g., Schuman, Inkeles, and Smith 1967). Literacy and elementary bookkeeping skills are valuable even in very primitive economies (e.g., Pirenne 1937, p. 13; Kelley and Perlman 1971, pp. 216-20). (2) New political and economic power creates new opportunities for cultural brokers and go-betweens (politicians, lawyers, expeditors, etc.) to mediate between peasant communities and nonpeasant society (e.g., Bailey 1963). To do so requires knowledge, contacts, and linguistic and political skills. Modern revolutions generally create numerous new positions in schools, health and welfare agencies, the government bureaucracy, and nationalized industry. Economic

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income doubles, the Gini is unaffected, but the standard deviation is doubled. Doubling income also doubles the gap between rich and poor: a poor man has twice as large a gap to overcome if he is to become a rich one, and his son has twice the handicap; and that increases inequality in a familiar and reasonable sense of the term. So we prefer a measure, like the standard deviation, that reflects such changes. With this exception, the choice of measure makes no real difference in practice. The correlation between the Gini and the corresponding measure based on the standard deviation, computed over the income distributions of 56 countries, is .84 (computed from Paukert 1973, table 6); other popular measures are highly correlated with the Gini and so presumably with the standard deviation (Alker and Russett [1964] report correlations averaging .87 computed over various data of practical interest).



growth, a goal of almost all modern revolutions, expands the market economy and increases employment in professional, managerial, and clerical jobs and in transportation (Moore 1966; Kuznets 1965); and success in these requires educational, technical, and linguistic skills. (3) Educational credentials may become more important quite apart from any real connection with performance, since requiring fixed levels of education is an effective and convenient way of restricting access to jobs (Collins 1971), especially in the expanding bureaucracies. (4) In societies in which there are several languages (or the educated classes speak a different dialect), skills in the dominant language often become more valuable after the revolution. They give access to new opportunities in education and commerce and are useful in dealings with the bureaucracy. With increasing contact between urban and rural areas and the atrophy of the old landlord's role as intermediary, facility in the national language helps in dealing with the police, bureaucracy, merchants, and employers.

These new opportunities will, we predict, make education, technical and linguistic skills, and other forms of human capital more valuable, giving a larger return in occupational status and income. Some will be able to take direct advantage of their skills by self-employment, taking up more attractive and profitable opportunities than were available before the revolution. To match these new opportunities in self-employment, employers will have to offer more to attract skilled employees. Also the growth in the number of jobs requiring education and linguistic skills increases the demand for skilled personnel, and, since the supply can increase only slowly, skilled workers will use their improved bargaining position to extract better wages.

*Who benefits?*—Radical revolutions benefit most of their supporters, since their surplus is no longer expropriated by the old elite. But we predict that revolutions do not benefit the poorest as much as those who already possessed human or physical capital. Those with human capital, already better off before the revolution, have a great advantage in the new bureaucratic, commercial, and political jobs (e.g., in the Soviet Union [Khrushchev 1970, pp. 18–21]) and in commercial agriculture. In addition, there are typically substantial differences in the amount and value of land peasants worked before the revolution, and they are often able to maintain or strengthen their customary rights afterward (e.g., in Bolivia [Carter 1964]); then with their surplus no longer expropriated, well-to-do peasants benefit more from their advantages.

### Status Inheritance

Because a radical revolution leads to the redistribution of wealth, we predict that it leads to less inheritance of status—that is, more pure social mo-

bility<sup>4</sup>—for those who came of age just after the revolution. Since many prerevolutionary elite parents lose their wealth, they have less of an advantage to pass on to their children, whereas some poor parents gain new resources and have more to give theirs. So on the average there is less variation in the wealth that parents can pass on to their children and hence less status inheritance.

But status inheritance does not disappear. Some economic inequalities are likely to remain after even the most dedicated and efficient attempts at redistribution. Human capital remains; education, literacy, technical and linguistic skills, and the like retain or even increase their value and cannot be redistributed. The old elite and others who were better off before the revolution have more of these resources and are able to pass some of their skills on to their children. So an effective means of transmitting status from one generation to the next remains; in the short run, a revolution will reduce status inheritance but not eliminate it.<sup>5</sup>

### Summary

*Hypothesis 1.*—In the short run, a radical revolution produces a more equal distribution of physical capital and, for those coming of age just afterward, less status inheritance.

*Hypothesis 2.*—In the short run, a radical revolution causes a shift in the basis of stratification, making human capital (education, knowledge, technical and linguistic skills, etc.) a more valuable source of occupational status and income.

*Hypothesis 3.*—A revolution does not immediately benefit the poorest of its supporters as much as it benefits those who possess human capital or have been able to retain physical capital.

<sup>4</sup>“Status inheritance” refers to a lack of pure (Yasuda 1964) mobility; we measure it by the product-moment correlation between fathers’ and sons’ status. It focuses on the extent to which sons’ status is *influenced* by fathers’ status—on the amount of rigidity in the status structure—regardless of whether sons rise above their fathers or sink below them. If sons from high-status families always maintain their advantage over sons from lower-status families, there has been complete status inheritance, even when all sons have higher (or lower) status than their fathers. This is the aspect of social mobility that interests us, an interest widespread in the field (e.g., Blau and Duncan 1967; Treiman and Terrell 1975). To avoid confusion, we have not used the more general term “social mobility.”

<sup>5</sup> In exceptional circumstances, a revolution might even increase it, if physical capital played a minor role before the revolution and human capital had a greatly increased payoff afterward. But that is unlikely in the predominantly peasant societies we are considering. Furthermore, physical capital plays a major role in transmitting human capital from one generation to the next—wealthy parents are better able to pay school fees and support their children during their schooling—so economic redistribution will reduce the inheritance of human capital, which tends to decrease status inheritance; see eq. (3) below.

• LONG-TERM EFFECTS

Stratification among Peasants

A radical revolution allows peasants to obtain a higher return on their physical capital since, by definition, it reduces exploitation. (1) By reducing rents or taxes on land, it allows peasants to retain more of what they produce. The destruction of *corvée* labor obligations—the crucial tax in many agrarian societies—allows peasants more time to work their own land for their own benefit (e.g., an additional one to three days per week in medieval Europe and three or more days in 20th-century Bolivia [Pirenne 1937, p. 64; Burke 1971, p. 328]). (2) Revolution is likely to reduce the costs peasants pay for goods and services by destroying traditional monopolies on trade, credit, and justice. Monopolies allowed traditional elites to charge exorbitant prices; even where the revolutionary government makes no deliberate attempt to reduce prices, competition is likely to drive them down. (3) Prior to the revolution, peasants' opportunities are often restricted to the least profitable sectors of the rural economy. However, the destruction of serfdom, *corvée* labor, and other laws tying peasants to the land opens up new opportunities. They can sell their own produce and take up wage-paying jobs in addition to agriculture, which in some cases increases their income dramatically (e.g., Burke 1971, pp. 318–31). Some become traders and merchant middlemen, replacing the old elite's commercial monopolies. (4) Economic change may have the same effects, with or without revolution. The introduction of new cash crops or new agricultural techniques, the opening of new markets, and the like all provide new and often profitable opportunities. Ending economic discrimination against blacks, untouchables, the Ainu, etc. opens up opportunities for them.

These new opportunities will, we predict, lead eventually to greater economic inequality among peasant proprietors and the mass of the previously exploited population.<sup>6</sup> Even in prerevolutionary times, peasants differ in their physical capital (e.g., size and quality of usufruct landholdings), in human capital (e.g., agricultural or linguistic skills, education, experience with the outside world), and in ability, diligence, motivation, luck, and the like. By expropriating the surplus and restricting opportunities to use capital effectively, the old system prevented fortunate peasants from getting the full benefit of their advantages and so restrained the growth of inequality. Revolution removes the restraints, allowing them to take full advantage of

<sup>6</sup> Especially for the peasantry (tied to the land, they were usually subject to effective control and stringent restrictions) and residents of small rural towns (also subject to effective control) but less for residents of large urban areas and perhaps not at all for workers on large plantations and in rural industries (revolution does not basically change their opportunity structure, and their wages are often subject to political control afterward).

their resources.<sup>7</sup> In the long run, that creates steadily growing inequality among peasants and other previously exploited groups. The fragmentary evidence now available supports this prediction (Chevalier 1967, pp. 178, 180-84; Craig 1969, pp. 290-91; Lenin [1920] 1967, p. 339; Petras and Zernelman 1972, pp. xii, 95-97). This leads to what might be called the kulak stage—the rise of a newly enriched sector of the peasant population and the emergence of an essentially capitalist rural stratification system.<sup>8</sup> Since fortunate peasants have increasingly large advantages to pass on to their children, we predict that revolution will in the long run lead also to steadily increasing status inheritance among them. The same reasoning applies to those economic revolutions and social changes that reduce exploitation, and in fact there is evidence that they increase both inequality (e.g., in agriculture following the Green Revolution [Havens and Flinn 1975]) and status inheritance (e.g., among American blacks in the past decade [Featherman and Hauser 1976]).

*Human capital.*—In the long run, a radical revolution leads to greater inequality in human capital among the peasantry and previously exploited masses. (1) Revolution provides additional reasons for acquiring human capital. Education, linguistic skills, and other forms of human capital are always valuable, and if anything, revolution makes them more so. Peasants can expect greater benefits from education after the revolution, since they have new opportunities to use it and can keep more of what they earn. Investing in education therefore becomes more attractive on straightforward economic grounds (e.g., Mincer 1974; Burke 1971, pp. 324-30). Economic revolutions often have the same effect (e.g., Patrick and Kehrberg 1973). (2) Modern revolutions supply the means. Whether from conviction or because of peasants' new political power, revolutionary governments generally

<sup>7</sup> In principle peasants might devote their new opportunities solely to leisure rather than accumulation, working only long enough to earn their customary wage. But in practice they are poor enough and materialistic enough not to do that; earlier claims that they would do so have been generally abandoned, now that systematic data are available (Miracle and Fetter 1970).

<sup>8</sup> The social and economic restraints which prerevolutionary peasants created in order to restrict inequality will in practice be eroded, if not destroyed, by revolution and the expansion of economic opportunities. In much of traditional Latin America, for example, the fiesta system effectively exchanged wealth for prestige, inhibiting the growth of economic inequality (Cancian 1965). As a man's career progressed, he took on an orderly system of lesser fiesta offices which paralleled his growing power and influence, culminating in his fifties with a major political role in the traditional community government and sponsorship of a major and expensive fiesta. After a revolution peasants are usually unwilling to exhaust their savings in this way, in part because the economy provides alternative attractions but also in part because the prestige obtained by sponsoring a fiesta has declined. Much of the prestige came from the intimate association with power in the traditional system. Revolution breaks that association down, creating new sources of power separate from the traditional offices and usually dominated by younger, more cosmopolitan leaders with little involvement in the fiesta system.

expand the school system, making education available where it was not before. (3) Educational inequality increases because some children benefit more than others. Able and motivated children have an advantage, as do children from privileged families. Throughout the world, well-educated, high-status families are much more successful in getting their children educated (e.g., in tribal societies [Kelley and Perlman 1971], in socialist societies [Anderson 1975; Lane 1971, pp. 107–20] and in industrial societies [Treiman and Terrell 1975]); they provide encouragement and role models, teach linguistic and academic skills, force their children to work harder, and the like. Schooling is usually expensive, both in direct costs (fees, supplies, clothing, etc.) and indirect costs (income the student could otherwise have earned); prosperous families can better afford these costs.

This growing inequality in human capital will, we predict, in the long run lead to greater economic inequality and more status inheritance among peasants. Since education and other forms of human capital are quite valuable, greater inequality in human capital leads to greater inequality in income and wealth. That, we have argued, leads to greater status inheritance. Educational changes also increase status inheritance directly. As educational inequality grows among parents—that is, as the gap between well- and poorly educated parents increases—it becomes more of an advantage to be born into a well-educated family.

*Government intervention.*—A revolutionary government can try to restrain these forces by limiting the private accumulation and inheritance of capital. Populist and middle-class revolutionary parties are unlikely to have either the ideological justification or the dedicated cadre with which to do so, although many socialist and communist governments make the attempt. But it is unlikely to succeed. Expropriating large landowners, large capitalists, and foreign investments and thereby securing the “commanding heights” of the economy will not be enough, since accumulation by the mass of upper peasants and the educated middle class leads, we have argued, to inequality. To restrain these groups, private capital will have to be abolished throughout the economy. In practice this is usually accomplished by socializing the industrial economy and collectivizing the land and sometimes by the physical extinction of the kulaks. Many people have something to lose from such actions, and they are not without recourse. Small businessmen have money and can threaten to withdraw valuable services; the upper levels of the peasantry know they have much to lose; the educated middle class and party workers newly ensconced in the bureaucracy will want to secure their advantage by accumulating wealth. To fully overcome the opposition of these groups requires from the party’s cadres a level of commitment, dedication, and resistance to temptation that is difficult to maintain over the years; it also requires an extensive and efficient bureaucratic apparatus which can

extend its control to the very grass roots, an apparatus few societies have ever possessed. China's cultural revolution may have been in part an attempt to overcome this kind of opposition and prevent the reemergence of inequality (see, e.g., Yüeh 1976). Even in China, however, the costs were great, opposition was strong, and success uncertain; other examples are not easy to find.

But the abolition of private capital is not in itself enough to prevent the long-term growth of inequality, since much (indeed most) inequality arises from differences in education, skills, language, and other forms of human capital which are almost immune to redistribution. Human capital is crucial: to run even a moderately complex society requires an educated elite—business, industry, and government require a variety of administrative and technical skills, and even farming and small trading are greatly facilitated by literacy, bookkeeping, and specialized technical skills (see, e.g., Becker 1964; Mincer 1974; Stinchcombe 1961). Although it is sometimes claimed that schools impart few skills of any genuine importance but merely screen or certify or are otherwise dispensable, that claim is inconsistent with detailed evidence for modern industrial societies and with the clear importance of education in societies with very different economic and institutional structures (for industrial societies, see Layard and Pscharopoulos [1974]; and Welch [1975, pp. 65–69]; for socialist societies, Anderson [1975]; for feudal societies, Pirenne [1937, p. 13]; for tribal and developing societies, Lenski [1966], Kelley and Perlman [1971], and Kelley [1976, table 1]). Ignoring these skills in favor of political or equity considerations is exceedingly costly (see, e.g., Khrushchev 1970, pp. 18–21); to date only China has systematically and persistently attempted it after the revolutionary government was firmly established and the threat of counterrevolution past. Nor can governments effectively prevent human capital from being passed from one generation to the next without draconian changes in the family. The knowledge, values, culture, and language skills acquired in elite homes give children an enormous and enduring advantage in socialist as well as capitalist societies (Anderson 1975; Duncan, Featherman, and Duncan 1972, chaps. 3, 5, 6; Lane 1971, chap. 5); discriminatory admissions policies for higher education and government can reduce the advantage somewhat but not eliminate it, save at enormous cost. Thus a revolution able to abolish private property will slow the long-term growth of inequality and status inheritance but will not prevent it.

### Stratification in the Society as a Whole

In the long run, a radical revolution will, we have argued, create more inequality and status inheritance among peasants and the previously ex-

exploited rural masses. But its effects on the society as a whole are less clear. We will argue that inequality and status inheritance first decrease and then remain low for a period; in most circumstances they then increase steadily and, in some circumstances, eventually exceed their prerevolutionary levels.

Economic development increases inequality. Even if everyone retains the same relative position, development increases the absolute size of the gap between rich and poor and therefore increases inequality as we define it; if, for example, the introduction of new cash crops doubles everyone's income, it also doubles the gap between poor peasants and rich merchants, so the peasant has twice the obstacle to overcome if he is to live as well as a merchant, and a peasant's son has twice the handicap to overcome if he is to catch up with a merchant's son. In addition, anyone with physical capital, human capital, or other advantages will be better able to take advantage of new opportunities opened up by economic development and that increases inequality by any definition.

The benefits that revolution provides for peasants and the exploited rural masses will at first decrease inequality in the society as a whole. Peasants' income, wealth, and human capital almost always begin well below the average for the whole society, while the commercial and administrative sectors in rural towns and most urban groups are markedly better off initially. The revolution reduces exploitation, improving the economic position of all peasants and moving them closer to the mean. That reduces inequality.<sup>9</sup> Most peasants go no further. But those with physical or human capital or other resources will continue to improve their position, especially if the revolution is one which produces economic development. As they draw closer to the mean, inequality continues to decline. But as they surpass the mean in increasing numbers, inequality first stabilizes and then (depending on how many surpass it and by how much) may increase.<sup>10</sup> So there is a standard sequence following the revolution. Inequality first declines and then stabilizes. If peasants continue to improve their economic position, the decline lasts longer, but eventually inequality begins to increase again and eventually may exceed its prerevolutionary level.

How far along this sequence a society proceeds depends not only on what happens to the peasants but also on how high the mean is to begin with and how it changes subsequently. Most prerevolutionary peasant societies are very poor, with a small surplus extracted by a tiny elite (Lenski 1966,

<sup>9</sup> The standard deviation, our measure of inequality, is of course a simple function of the (squared) deviation from the mean. As peasants approach the mean, the deviation decreases; and as they draw further away from it, it increases.

<sup>10</sup> Inequality actually begins to increase somewhat before they reach the mean. Improvement of their position will usually raise the mean for the society as a whole, and poor peasants will then be further behind, which increases inequality.

chaps. 8, 9). The average is low, and, other things being equal, that makes it easier to surpass, and the society will then go through the sequence quickly, often reaching the stage where inequality increases. In richer societies (e.g., eastern Europe following the communist revolutions), peasants have further to go, and the society passes along the sequence more slowly. The average also depends on what happens to the urban population and the post-revolutionary elite, but that reflects the power and ideology of the revolutionary leadership, the society's economic and administrative capacity, international political and economic restraints, and a variety of other factors beyond the scope of our theory.

There may be further redistribution after the revolution; this too affects inequality. Particularly where there is no sustained economic growth, gains by rich peasants are someone else's losses. If they gain entirely at the expense of the elite, there will be more equality. But in practice, their gains will most probably be at the cost of poor peasants and lower and middle classes in the towns. As rich peasants take over marketing, credit, and middleman functions, they displace middle- and lower-class urbanites, and liberated peasants compete for desirable urban jobs. Successful peasants will produce cash crops more efficiently, undercutting poor peasants' market positions and driving them off the land. When rich peasants begin to pass the mean, inequality will eventually increase as long as their gains are mainly at the expense of groups below the average (or, of course, if they are at no one's expense).

A revolution's effects on inequality in the society as a whole thus depend crucially on the speed of economic development, the economic position of urban groups and the postrevolutionary elite, and government policies toward accumulation. We predict that inequality will increase most dramatically if the revolution generates economic development (which directly increases inequality) and if the entire society was poor to begin with (since rich peasants exceed the mean sooner). Since modern revolutions in poor societies (e.g., Mexico in 1910, Bolivia in 1952) almost always promote economic development, we predict that they will eventually create more inequality than existed before the revolution unless governments make strenuous efforts to prevent it. The scattered evidence now available suggests that inequality does increase (e.g., Wolf 1956). Economic revolutions—the decay of feudalism, the early stages of industrial revolution, the introduction of cash crops and a money economy in premarket Asian and African societies, the Green Revolution in agriculture, etc.—lead to economic development. We predict that therefore they will cause inequality in the long run; the evidence indicates that they do (Kuznets 1965, pp. 275–77). In contrast, we predict that classical peasant revolutions in traditional societies in which urban areas remain much richer than the countryside and no economic de-



velopment results will reduce inequality (e.g., Punjab in the late 19th century). Changes in status inheritance in the society as a whole will, we predict, parallel changes in inequality for the reasons set out earlier. The only clear data now available support this prediction.<sup>11</sup>

### Summary

*Hypothesis 4.*—In the long run, peasants are better off after a radical revolution.

*Hypothesis 5.*—By allowing peasants to utilize their resources more fully, radical revolutions set loose forces which tend in the long run to produce steadily increasing economic inequality among them.

*Hypothesis 6.*—In the long run, radical revolutions produce increasing educational inequality among peasants.

*Hypothesis 7.*—Among peasants, radical revolutions create forces which tend in the long run to produce more status inheritance through both economic advantage and education.

*Hypothesis 8.*—In the society as a whole, inequality and status inheritance following a radical revolution will first decrease, then stabilize, then (a) remain low if nonpeasants remain well off and there is no economic development in the countryside but (b) steadily increase and perhaps in time exceed prerevolutionary levels in poor societies in which there is substantial economic development.

Hypotheses 4–8 apply not only to radical revolutions but also to any social changes which reduce exploitation or increase economic opportunities, with the poor and exploited taking the role of peasants.

### FORMAL MODEL

#### Short-Term Effects

We have defined “radical revolutions” as those which reduce the exploitation of peasants. Since peasants are poor and exploiters rich, that clearly reduces the standard deviation, our measure of inequality. For people coming of age shortly after the revolution, before inequality has had a chance to reemerge, the decline in inequality should, we will show, lead to less status inheritance (i.e., more pure mobility). A detailed argument is given elsewhere (Kelley, *in press*). Briefly, we assume that a son’s (or daughter’s) occupational status is determined only by his human capital (education, knowledge, skills in

<sup>11</sup> These data are from the communist revolution in Poland. The correlation between father’s and son’s occupational status (dichotomized into manual/nonmanual) in Poland was .63 for cohorts coming of age before World War II, .58 for those coming of age during the war, .43 for those at the beginning of the communist period, and .51 for later (1956–68) cohorts (computed from Zagorski [1971],  $N = 3,260$ ).

language, war, crafts, etc.), his physical capital (wealth, land, cattle, etc.), and various other things (luck, strength, ability, etc.) which are uncorrelated with his father's occupational status. We assume that all relationships are, to a reasonable approximation, linear and additive, so that

$$\text{STATUS}_s = h \text{HUMANCAP}_s + w \text{WEALTH}_s + \text{OTHER}_1, \quad (1)$$

where  $\text{STATUS}_s$  is the son's occupational status,  $\text{HUMANCAP}_s$  is his human capital,  $\text{WEALTH}_s$  is his wealth and other physical capital,  $h$  and  $w$  are constants, and  $\text{OTHER}_1$  measures other factors. His human and physical capital are in turn determined by his father's human and physical capital and by ability, motivation, luck, and other factors uncorrelated with his father's occupation, that is,

$$\begin{aligned} \text{HUMANCAP}_s &= h_{fh} \text{HUMANCAP}_f + h_{fw} \text{WEALTH}_f + \text{OTHER}_2, \\ \text{WEALTH}_s &= w_{fh} \text{HUMANCAP}_f + w_{fw} \text{WEALTH}_f + \text{OTHER}_3, \end{aligned} \quad (2)$$

where  $\text{HUMANCAP}_f$  and  $\text{WEALTH}_f$  are father's human and physical capital, the  $h$ 's and  $w$ 's are constants, and the OTHERs measure other factors uncorrelated with father's capital or status. The correlation,  $r_{fs,ss}$ , between father's and son's occupational status, the usual measure of status inheritance, is obtained by substituting these in equation (1), multiplying both sides by father's status, summing over the whole population, and dividing by  $N$ , giving

$$r_{fs,ss} = r_{fs,fh} \frac{\sigma_{fh}}{\sigma_{ss}} (h_{fh}h + w_{fh}w) + r_{fs,fw} \frac{\sigma_{fw}}{\sigma_{ss}} (h_{fw}h + w_{fw}w), \quad (3)$$

where the subscripts  $fs$ ,  $fh$ , and  $fw$  refer to father's status, human capital, and wealth, respectively, and  $ss$  to son's status. (We have assumed without loss of generality that all variables are measured as deviations from their means.) The OTHERs have dropped out, since they are uncorrelated with father's status. All terms in equation (3) are positive, since we assume that having capital is always beneficial (therefore the lowercase constants are all positive) and that the correlations between father's status and his human capital and physical capital, respectively, are positive; we also assume that the range of occupations open to sons is fixed by the occupational structure or changes only slowly, so that  $\sigma_{ss}$  is approximately constant. It follows directly that, other things being equal,  $r_{fs,ss}$  will be smaller—that is, there will be less status inheritance—whenever human capital or physical capital is more equally distributed in the father's generation, since either  $\sigma_{fh}$  or  $\sigma_{fw}$  is smaller. That<sup>12</sup> is the second part of Hypothesis 1. The converse, that greater

<sup>12</sup> This is somewhat offset by the increasing importance of education (i.e., increasing  $h$ ) predicted by Hypothesis 2. In practice the effect of education is likely to be smaller than

inequality in father's human or physical capital leads to more status inheritance, is used later in Hypotheses 7 and 8.

Hypotheses 2 and 3 follow from the familiar model of occupational attainment as a sorting process (e.g., Thurow 1975). Candidates for jobs differ in various ways (human capital, wealth, ability, motivation, etc.) which make some of them more suitable than others. Jobs also offer various rewards (money, prestige, interest, etc.) which make some more desirable than others. Getting a job is then like a marriage market; except for a good deal of luck and confusion, the most suitable candidates get the best jobs (they want those jobs, and employers prefer them to less suitable candidates), and the less suitable candidates get the poorer jobs (the better jobs are already taken, and the better candidates are already employed). Hypothesis 3 follows on the assumption that revolution does not change this basic process but simply provides new slots and removes the old elite from the top of the queue, opening up new places for everyone else. Hypothesis 2 claims essentially that revolutions produce changes in the kinds of jobs available and in the criteria for filling them, which make candidates with education and various skills more desirable to employers (or more successful in self-employment) and hence able to obtain better jobs and higher pay.

### Long-Term Effects

We now develop a model of a radical revolution's effects on income and the accumulation of wealth and hence on inequality and status inheritance. Hourly rates of pay for unskilled workers before the revolution,  $\text{pay}_u$ , are determined by various production and supply conditions, employers' monopoly powers, geographic restrictions (which, e.g., prevent peasants from taking up trading and urban jobs or moving to high-wage areas), and the like. We assume that wage rates also depend on human capital (HUMANCAP) and on motivation, ability, luck, and the like (call them OTHER) which can to a reasonable approximation be combined into a single aggregate resource (HUMANCAP + OTHER) with wages proportional to it.<sup>12</sup> The return to

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the effects of  $\sigma_{fw}$  and  $\sigma_{fh}$ . It involves only half the terms in eq. (3). Increasing  $h$  will also increase  $\sigma_{fw}$  (because it increases the returns the father gets from his educational resources), and the jobs for which education matters are a small fraction of the total in most peasant societies.

<sup>12</sup> Without changing our conclusions, the aggregate could be any function which increases whenever any of its components increases and whose variance increases whenever any of their variances increase. Assume, plausibly, that having one resource (education, skills, motivation, ability, luck, etc.) does not systematically entail a loss of others, so that the correlations among resources are positive or zero. Then any (positively weighted) average of them, a multiplicative Cobb-Douglas function of them, and a variety of other specific functions all have the required characteristics.

this combined resource reflects both the economic return and the costs imposed by restrictions on the type and location of work peasants are allowed to undertake, employers' monopoly powers, and the like. Wage rates for all workers are then  $[\text{pay}_u + \text{pay}_s \cdot (\text{HUMANCAP} + \text{OTHER})]$ , all workers receiving  $\text{pay}_u$  and skilled workers receiving a bonus proportional to their resources. For simplicity, we assume that this is the same throughout the life cycle, but other reasonable assumptions (e.g., Mincer 1974, chap. 1) would lead to the same qualitative conclusions. By reducing the costs imposed on  $\text{pay}_u$  and  $\text{pay}_s$ , a revolution increases both components of workers' pay.

Earnings depend on the number of hours worked for pay. Yearly earnings, EARNED, will be hours worked for pay times the wage rate, less any per capita taxes (e.g., headtaxes), or in all

$$\begin{aligned} \text{EARNED} &= \text{hours} [\text{pay}_u + \text{pay}_s \cdot (\text{HUMANCAP} + \text{OTHER})] \\ &\quad - \text{headtax} \\ &= (\text{hours} \cdot \text{pay}_u - \text{headtax}) \\ &\quad + [\text{hours} \cdot \text{pay}_s \cdot (\text{HUMANCAP} + \text{OTHER})] . \end{aligned} \tag{4}$$

The third and fourth lines separate earnings into a part that is the same for everyone (unskilled wages minus head taxes) and a part that depends on the worker's human capital and other resources. Labor taxes (common in quasi-feudal societies) simply subtract some hours from those worked for pay; taxes that are, taken all together, approximately a fixed proportion of income (e.g., some combination of progressive, flat-rate, and regressive taxes) also in effect subtract working hours. Revolution in an exploited peasant countryside will reduce taxes, effectively increasing the number of hours worked for pay, and hence increase earnings and the variance in earnings; in other words, it will increase inequality.

Wealth is simply accumulated savings from the past plus inherited wealth, both invested at interest. Assume that people save approximately a fixed percentage, *save*, of both their wage income and the interest, *int*, they earn on accumulated capital. Then wealth in the  $n$ th year of someone's working life,  $\text{WEALTH}_n$ , depends simply on accumulated wealth from the past,  $\text{WEALTH}_{n-1}$ ; on savings from interest,  $\text{save} \cdot \text{int} \cdot \text{WEALTH}_{n-1}$ ; and on savings from the year's wage earnings,  $\text{save} \cdot \text{EARNED}$ , giving,

$$\begin{aligned} \text{WEALTH}_n &= \text{WEALTH}_{n-1} + \text{save} \cdot \text{int} \cdot \text{WEALTH}_{n-1} \\ &\quad + \text{save} \cdot \text{EARNED} \\ &= (1 + \text{save} \cdot \text{int}) \text{WEALTH}_{n-1} + \text{save} \cdot \text{EARNED} . \end{aligned} \tag{5}$$

- By induction, wealth at time  $n$  can be expressed as a function of inherited wealth,  $WEALTH_0$ , and the accumulated savings from each year in the past:

$$\begin{aligned}
 WEALTH_n &= (1 + \text{save} \cdot \text{int})^n WEALTH_0 + (1 + \text{save} \cdot \text{int})^{n-1} \text{save} \cdot \\
 &\quad \text{EARNED} + (1 + \text{save} \cdot \text{int})^{n-2} \text{save} \cdot \text{EARNED} \quad . \\
 &\quad + \dots + \text{save} \cdot \text{EARNED} \\
 &= [(1 + \text{save} \cdot \text{int})^n WEALTH_0] \\
 &\quad + \left[ \frac{(1 + \text{save} \cdot \text{int})^n - 1}{\text{int}} (\text{hours} \cdot \text{pay}_u - \text{headtax}) \right] \quad (6) \\
 &\quad + \left[ \frac{(1 + \text{save} \cdot \text{int})^n - 1}{\text{int}} \text{hours} \cdot \text{pay}_s \cdot (\text{HUMANCAP} \right. \\
 &\quad \left. + \text{OTHER}) \right].
 \end{aligned}$$

The second line is obtained by summing the geometric series and then substituting the earnings expression from (4) and simplifying.<sup>14</sup> It gives current wealth explicitly in terms of the accumulated advantages from inherited wealth (first term), plus the accumulated savings everyone will have from his labor (second term), plus the accumulated savings from the bonus paid to workers with human capital and related resources (third term).

Total yearly income from all sources in the  $(n + 1)$ th year,  $INCOME_{n+1}$ , depends on the same factors. It is simply the interest earned on the wealth accumulated in previous years plus the amount earned by working during the current year or, from equation (4),

$$\begin{aligned}
 INCOME_{n+1} &= (\text{int} \cdot WEALTH_n) + (\text{hours} \cdot \text{pay}_u - \text{headtax}) \\
 &\quad + [\text{hours} \cdot \text{pay}_s \cdot (\text{HUMANCAP} + \text{OTHER})] \quad (7)
 \end{aligned}$$

The first term is the return from accumulated wealth, the second is the income everyone earns by working, and the third term is the bonus earned by workers with human capital or other resources.

A radical revolution increases peasants' wealth and income (Hypothesis 4). It reduces taxes (headtax is smaller afterward, or, for proportional taxes, peasants in effect have more hours to work on their own account); that reduction increases the second component of both wealth and income. By such action as destroying the old elite's monopolies, removing restrictions on geographic mobility, and allowing peasants to take up a wider range of jobs, the revolution increases both  $\text{pay}_u$  and  $\text{pay}_s$ , thereby increasing the second and third components of both wealth and income. New op-

<sup>14</sup> The sum  $1 + r + r^2 + \dots + r^{n-1}$  is  $(r^n - 1)/(r - 1)$  in general or  $[(1 + \text{save} \cdot \text{int})^n - 1]/(1 + \text{save} \cdot \text{int} - 1)$  in this case.

portunities and incentives for peasants to invest in human capital increase the third component. Revolution may allow peasants to use their physical capital more effectively; this result increases the interest rate and therefore increases all three components of wealth and the first component of income. Anything that increases wealth of course increases the first component of income in subsequent years.

Inequality is the standard deviation of wealth (eq. [6]) or income (eq. [7]). It will be greater whenever any of the coefficients of the first or third component are higher.<sup>15</sup> Even when everyone benefits from an increase, people with inherited wealth, human capital, or other resources will benefit more than others, and inequality will increase. So an increase in the rate of saving or the interest rate produces greater inequality in wealth (those who inherited wealth get a larger return from it, and people with human capital get more from savings) and, in subsequent years, in income. An increase in the pay of skilled workers or in the number of hours worked for pay greatly increases inequality in wealth and income, since those benefits go disproportionately to people with human capital and other resources. As we have seen, revolution increases all of these. With higher returns available on human capital, peasants have more reason to invest; the variance in human capital is likely to increase as well, if only because education depends on ability and family background. Both increase the variance in the third component of wealth and income and hence inequality. Inequality also increases when the variance in inherited wealth goes up; more inequality among postrevolutionary fathers ensures that. These are the claims underlying Hypothesis 5.

Revolution makes investment in education more attractive by increasing the returns, pay<sub>s</sub>, reducing the taxes paid on these returns, and increasing profits from investing them. Hence fathers devote more of their wealth to paying for their sons' education and invest more time and effort in transmitting their cultural skills; sons more fully exploit their ability and other resources, which enable them to acquire education (thus in eq. [2],  $h_{fn}$ ,  $h_{fw}$ , and  $OTHER_2$  will be larger). Since sons' abilities and fathers' human and

<sup>15</sup> Both expressions are of the general form  $a \cdot WEALTH + b + c \cdot (HUMANCAP + OTHER)$ , where  $a$ ,  $b$ , and  $c$  are constants, and  $WEALTH$  and  $(HUMANCAP + OTHER)$  are variables. The standard deviation of the sum is a function of the means and standard deviation of each variable and the covariance between them. We assume that inherited wealth is either positively correlated with human capital and other resources or uncorrelated; it follows that wealth in the  $n$ th year also has a positive or zero correlation. Hence the standard deviation will be an increasing function of  $a$ , of  $c$ , and of the variance in wealth, human capital, and other resources. Since  $b$  is the same for everyone, it does not contribute to inequality in the  $n$ th year (the time specified in eqq. [6] and [7]), but it does contribute to inequality for the whole population. People who have worked for only a few years will have had only a few years in which to save, but people who have worked for many years will have many years of savings and so more accumulated wealth; hence even an across-the-board increase in wages produces some inequality (Paglin 1975). This effect will, however, be small compared with the others, so we ignore it.

physical capital are themselves unequally distributed (especially after the revolution), the variance in sons' education (computed from eq. [2]) will increase. This is the claim made in Hypothesis 6.

Hypothesis 7 follows from Hypotheses 5 and 6 together with equation (3). Revolution increases inequality among fathers, that is,  $\sigma_{zh}$  and  $\sigma_{fw}$ ; and that increases status inheritance.

Hypothesis 8 follows from a simple model. As a rough approximation, we can imagine that there are four classes in the society as a whole—peasants and other members of the rural masses who have no appreciable human capital, peasants and others with human capital, the working- and middle-class population of the towns, and the urban elite—and that within each class everyone has the same wealth and income. The average income (or wealth) in the society as a whole is simply the weighted average for all four classes, and income inequality is the standard deviation of income, which is a simple function of the squared deviation from the mean. Before the revolution, all peasants are poor, the elite is rich, and the town population is somewhere in between. Revolution makes the elite poorer and peasants richer, bringing everyone closer to the mean and reducing inequality. Peasants with human capital then begin to improve their positions steadily, which further reduces inequality when they are still below the mean, has little effect when they are near the mean, and eventually increases inequality if they rise above the mean. Whether they get that far depends on how high the mean was to start with, how much richer they become, and what happens to the mean while all this is going on. If the mean is low at the beginning, if the revolution leads to steady economic development in the countryside (so that peasants with capital continue to grow richer), and if the town dwellers' and urban elite's wealth do not grow, then many rich peasants will exceed the mean. Inequality in the society will increase and may eventually exceed its prerevolutionary value, particularly when town dwellers and the elite are a small part of the total population. Without steady economic development and with a large gap between peasants and the rest of the society, inequality will remain low. These are the claims of Hypothesis 8. In other situations there are conflicting tendencies, the outcome depending on which are stronger. More complex models with more classes and wealth distinctions within classes lead to the same qualitative conclusions.

## DISCUSSION

A violent social revolution which frees peasants from their traditional exploitation will, we argue, in the short run improve their standard of living, reduce inequality in the society as a whole, and reduce inherited privilege. At this stage the peasants and the radical revolutionary intelligentsia have the same goal, the overthrow of the traditional elite and the end of exploita-

tion; but that does not last. Peasants with more land, human capital, or other resources are able to exploit their advantages more fully after the revolution. Furthermore revolution inadvertently sets loose forces which, if unchecked, will in the long run allow inequality and inherited privilege to grow steadily and, in some circumstances, exceed their prerevolutionary values. The result will be a relatively rigid rural stratification system of a familiar capitalist type, with rich peasants playing the role of capitalist entrepreneur. Thwarting these forces is never easy and often impossible. Liberal policies or even moderate socialist policies which allow a mixed economy will hardly repress these deeply rooted forces. They involve the property of modest family farmers and the opportunities for small traders, small businessmen, government bureaucrats, and the holders of human capital to accumulate wealth and pass it on to their children. By giving in to these forces, accepting the new status quo, and abandoning any further redistribution in the countryside, a revolution can maintain the allegiance of the new elites, leaving a peaceful, prosperous, and highly stratified countryside. The Bolivian and Mexican revolutions, for example, seem to have taken this conservative course. The only viable alternative is a radical attempt to root out even the smallest vestiges of private property, as in China or Cuba. Among other things, this requires extensive economic planning, a large and effective bureaucracy with unusual commitment and incorruptibility, the power to overcome strong opposition in the countryside, and a willingness to bear the substantial human costs involved. But even that does not solve the whole problem. If differences in education, skills, language, ability, or other kinds of human capital remain, they will eventually (albeit more slowly) lead to inequality, and unless children are reared apart from their parents, to inherited advantage. Human capital is much harder to control than is physical capital. Confiscating land and machines is easy compared with controlling it, and even in simple societies it is at least as important to the economy. To date, only China has been willing to bear the costs of a determined assault on human capital, and even there, both the outcome and the will to continue the assault are far from clear. In short, a revolution must either quietly turn conservative, allowing inequality and inherited privilege to grow steadily in the countryside, or turn radical and embark with uncertain prospects on an arduous struggle to remake the entire economy and culture.

### REFERENCES

- Alker, Hayward R., Jr., and Bruce M. Russett. 1964. "On Measuring Inequality." *Behavioral Science* 9 (July): 207-18.
- Anderson, Barbara A. 1975. "Social Stratification in the Soviet Union: Equality, Excellence and Other Issues." *Studies in Comparative Communism* 8 (Winter): 397-412.
- Bailey, F. G. 1963. *Politics and Social Change: Orissa in 1959*. Berkeley: University of California Press.



- Becker, Gary S. 1964. *Human Capital*. New York: National Bureau of Economic Research.
- Blau, Peter M., and Otis Dudley Duncan. 1967. *The American Occupational Structure*. New York: Wiley.
- Burke, Melvin. 1971. "Land Reform in the Lake Titicaca Region." Pp. 301-39 in *Beyond the Revolution: Bolivia since 1952*, edited by James M. Malloy and Richard S. Thorn. Pittsburgh: University of Pittsburgh Press.
- Cancian, Frank. 1965. *Economics and Prestige in a Maya Community*. Stanford, Calif.: Stanford University Press.
- Carter, William E. 1964. *Aymara Communities and the Bolivian Agrarian Reform*. University of Florida Monographs, Social Sciences, no. 24. Gainesville: University of Florida Press.
- Chevalier, François. 1967. "The *Ejido* and Political Stability in Mexico." Pp. 158-91 in *The Politics of Conformity in Latin America*, edited by Claudio Veliz. New York: Oxford University Press.
- Collins, Randall. 1971. "Functional and Conflict Theories of Educational Stratification." *American Sociological Review* 36 (December): 1002-19.
- Craig, Wesley W., Jr. 1969. "Peru: The Peasant Movement of La Convencion." Pp. 274-96 in *Latin American Peasant Movements*, edited by Henry A. Landsberger. Ithaca, N.Y.: Cornell University Press.
- Duncan, Otis Dudley, David L. Featherman, and Beverly Duncan. 1972. *Socioeconomic Background and Achievement*. New York: Seminar.
- Featherman, David L., and Robert M. Hauser. 1976. "Changes in the Socioeconomic Stratification of the Races, 1962-73." *American Journal of Sociology* 82 (November): 621-51.
- Havens, A. Eugene, and William Flinn. 1975. "Green Revolution Technology and Community Development: The Limits of Action Programs." *Economic Development and Cultural Change* 23 (April): 469-81.
- Jencks, Christopher, Marshall Smith, Henry Acland, Mary Jo Bane, David Cohen, Herbert Gintis, Barbara Heyns, and Stephan Michelson. 1972. *Inequality: A Reassessment of the Effect of Family and Schooling in America*. New York: Basic.
- Kelley, Jonathan. 1976. "L'Influence de la richesse et de l'origine familiales sur la carrière professionnelle: Théorie et données trans-culturelles." *Sociologie et sociétés* 8 (Fall): 99-114.
- . In press. *The Birth of Privilege: A Resource Theory of Inequality and Status Inheritance*. New York and London: Academic Press.
- Kelley, Jonathan, and Melvin L. Perlman. 1971. "Social Mobility in Toro: Some Preliminary Results from Western Uganda." *Economic Development and Cultural Change* 19 (January): 204-21.
- Khrushchev, Nikita. 1970. *Khrushchev Remembers*. Boston: Little, Brown.
- Klein, Herbert S. 1969. *Parties and Political Change in Bolivia, 1880-1952*. London: Cambridge University Press.
- Kuznets, Simon. 1965. *Economic Growth and Structure: Selected Essays*. New York: Norton.
- Lane, David. 1971. *The End of Inequality? Stratification under State Socialism*. Harmondsworth, Middlesex: Penguin.
- Layard, Richard, and George Psacharopoulos. 1974. "The Screening Hypothesis and the Returns to Education." *Journal of Political Economy* 82 (September/October): 985-98.
- Lenin, V. I. (1920) 1967. *Selected Works*. Vol. 3. New York: International Publishers.
- Lenski, Gerhard E. 1966. *Power and Privilege: A Theory of Social Stratification*. New York: McGraw-Hill.
- Mao Tse-tung. 1965. Interview with André Malraux reported in the *New York Times* (September 10, 1975).
- Mincer, Jacob. 1974. *Schooling, Experience, and Earnings*. New York: Columbia University Press.
- Miracle, Marvin P., and Bruce Fetter. 1970. "Backward-sloping Labor-Supply Functions and African Economic Behavior." *Economic Development and Cultural Change* 18 (January): 240-51.
- Moore, Wilbert E. 1966. "Changes in Occupational Structures." Pp. 194-212 in *Social*

## Revolution and Inequality

- Structure and Mobility in Economic Development*, edited by Neil J. Smelser and Seymour Martin Lipset. Chicago: Aldine.
- Paglin, Morton. 1975. "The Measurement and Trend of Inequality: A Basic Revision." *American Economic Review* 65 (September): 598-609.
- Patrick, George F., and Earl W. Kehrberg. 1973. "Costs and Returns of Education in Five Agricultural Areas of Eastern Brazil." *American Journal of Agricultural Economics* 55 (May): 145-53.
- Paukert, Felix. 1973. "Income Distribution at Different Levels of Development: A Survey of Evidence." *International Labor Review* 108 (August-September): 97-125.
- Petras, James, and Hugo Zemelman. 1972. *Peasants in Revolt: A Chilean Case Study*. Austin: University of Texas Press.
- Pirenne, Henri. 1937. *Economic and Social History of Medieval Europe*. New York: Harcourt, Brace & World.
- Schuman, Howard, Alex Inkeles, and David H. Smith. 1967. "Some Social Psychological Effects and Noneffects of Literacy in a New Nation." *Economic Development and Cultural Change* 16 (October): 1-14.
- Stinchcombe, Arthur L. 1961. "Agricultural Enterprise and Rural Class Relations." *American Journal of Sociology* 67 (September): 165-76.
- Thurow, Lester C. 1975. *Generating Inequality: Mechanisms of Distribution in the U.S. Economy*. New York: Basic.
- Treiman, Donald J., and Kermit Terrell. 1975. "The Process of Status Attainment in the United States and Great Britain." *American Journal of Sociology* 81 (November): 563-83.
- Welch, Finis. 1975. "Human Capital Theory: Education, Discrimination, and Life Cycles." *American Economic Review* 65 (May): 63-73.
- Wolf, Eric R. 1956. "Aspects of Group Relations in a Complex Society: Mexico." *American Anthropologist* 58 (December): 1065-78.
- . 1966. *Peasants*. Englewood Cliffs, N.J.: Prentice-Hall.
- . 1969. *Peasant Wars of the Twentieth Century*. New York: Harper & Row.
- Yasuda, Saburo. 1964. "A Methodological Inquiry into Social Mobility." *American Sociological Review* 29 (February): 16-23.
- Yüeh, Hai. 1976. "Communist Party Members Must Work for the Benefit of the Majority and Persist in a Continuous Revolution under the Proletarian Dictatorship." *Red Flag* (April), pp. 40-44.
- Zagorski, Krzysztof. 1971. "Social Mobility in Poland." *Polish Sociological Bulletin* 2: 5-16.

# **Racial Stratification and Socioeconomic Change in the American North and South<sup>1</sup>**

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Recent change in the life-cycle processes of educational, occupational, and earnings attainments is analyzed among black men native to the South, those native to the North, and black male migrants from the South to the North. Native northerners begin from relatively superior social origins and are better able to capitalize on these in the attainments of education and occupation than are either southern-born group. Between 1962 and 1973 the stratification experiences of the northern-born blacks rapidly converged with those of the white majority, so that by 1973 their system of stratification was more like that of whites than that of southern-born blacks. The processes of status allocation among the southern-born in 1973 were like those of northern natives in 1962. In this sense the integration of blacks into the majority stratification system began first and has proceeded furthest among blacks born in the North. Men living in the North, regardless of nativity, enjoy higher earnings than men living in the South. Migrants to the North earned about \$400 more in 1972 than did comparable northern natives. This advantage is not accounted for by longer schooling or higher returns to education, occupation, or number of weeks worked, since the natives are equal or superior to the migrants in these factors. In all, changes over the recent decade have supported the internal differentiation of the black population, the development of more distinct socioeconomic strata, the greater stability of inequalities between generations of black men, and gains toward socioeconomic integration. These changes have been more characteristic of the North than of the South.

The best known statement of traditional race relations theory (Myrdal 1944) characterized the American South of 30 years ago as a racially divided paternalistic society ruled by the "white man's theory of color caste." The twin pillars of racist ideology and economic self-interest provided the basis for the theory of color caste. The society was preserved

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through an apartheid-like system of etiquette (Jim Crow) and through racially segregated labor markets in which blacks competed for the most undesirable sorts of jobs. Cross-cultural research indicates that such a stratification system was a relatively common consequence of initial inter-racial contact in a situation of colonial conquest and settlement by Europeans with a racist ideology (Banton 1967; Kinloch 1974; Schermerhorn 1970; van den Berghe 1967).

The maintenance of the racial boundary is of paramount importance to the survival of such a society. But it is increasingly difficult to maintain as the social structure changes from a paternalistic agricultural system with prescribed social positions into a modern urban-industrial society in which social positions (at least among the majority population) are achieved by universalistic criteria (Banton 1967). As Myrdal foresaw, industrialization and urbanization in the South, as well as the migration of blacks to the more developed North, permitted some members of the minority group to achieve relatively high educations, occupations, and earnings, and also fostered conditions permitting economic and political action in pursuit of racial equality.

One way to measure black progress toward the achievement of social and economic equality is to compare the processes of achievement of the minority and majority populations. The available evidence to date indicates that lower black attainments have resulted not so much from the lower social origins of blacks as from a system of intergenerational status allocation (stratification) in which a black receives fewer returns to favorable characteristics of socioeconomic background or to subsequent investments in human capital than does a comparable white (e.g., Siegel 1965; Duncan 1968). Black men have experienced a perverse sort of egalitarianism—neither the disadvantages of lower socioeconomic origins nor the advantages of higher social origins and education weigh as heavily in the status attainments of blacks as they do in those of whites.

However, racial differentials in processes of status allocation have diminished in recent years, indicating that blacks have moved in the direction of economic integration with the majority population. By 1973 net differences in completed schooling which could be linked directly to race (versus socioeconomic background) had decreased to about one-half year for men in the experienced civilian labor force (ECLF). Among men aged

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25–34 in the ECLF there would have been no racial difference in education had socioeconomic origins been equal (Hauser and Featherman 1976). The gap in occupational status which separates black and white workers declined to about 17 points on the Duncan scale (Duncan 1961), and the correlations among statuses and between socioeconomic background and subsequent statuses were less different for the two major races. Thus, Featherman and Hauser note: “The tighter articulation between family background and achievement has fashioned a pattern of intergenerational stratification for younger blacks which resembles that among younger white men. . . . At the same time, the effect of education on occupational status has increased absolutely and relative to that of the family since 1962, and there is growing inequality in the statuses of black men of similar origins and schooling” (1976, p. 639). In this fashion the social stratification between generations of the black population is beginning to follow a process that tends to characterize majority populations in many industrialized nations, including the United States (Featherman, Jones, and Hauser 1975; Featherman and Hauser 1976).

But are these changes in racial stratification likely to appear in all segments of the black population—particularly by region? For instance, blacks in the North had gained employment in the industrial sector of the economy earlier than in the South (Taeuber and Taeuber 1965; U.S. Bureau of the Census 1971). This fact, together with the more recent development of an urban-industrial economy in the South, provides presumptive evidence that the application of universalistic criteria of achievement among southern blacks might lag behind that of northern blacks. Furthermore, the North was never structured as a strict two-color system; it included many ethnic and immigrant groups from abroad, and blacks probably have been viewed as a special group within this pluralistic system (Newman 1973). Finally, a theory of cultural lag complements these inferences from structural evidence about regional development and leads to the expectation of more rapid achievement of economic integration with the majority among northern than among southern blacks (e.g., Middleton 1976).

Because of the differing histories of race relations and of development of a modern industrial economy in the North and South, migration from the South to the North has been viewed as one way in which American blacks have upgraded their relative socioeconomic position (Myrdal 1944; Banton 1967; van den Berghe 1967). Such migration resulted from both push factors (e.g., few job opportunities and seasonal employment in the rural South) and pull factors (e.g., the lure of better paying jobs in northern industry, especially during war) (U.S. Bureau of the Census 1971, chap. 14; Eldridge and Thomas 1964). Migration from less developed regions into the new urban centers is a common concomitant of

national economic development in other countries as well (Goldscheider 1971; Balan, Browning, and Jelin 1973). In both the United States and Mexico migration is one mechanism removing such ascriptive restrictions on achievement as place of origin by enabling a man to take advantage of opportunities not available in his community of origin (Blau and Duncan 1967; Balan et al. 1973).

Liebersohn (1973) draws attention to the importance of distinguishing such migrants to the North from blacks who are native to the North. While nearly all blacks of southern residence were born in the South, a large and temporally varying proportion of northern blacks have been born in the South. Since the social origins, as well as the culture and personalities, of southern-born blacks may differ from those of northern-born blacks, and since such factors in turn are relevant to lifetime social and economic attainments, nativity should be considered when making comparisons between southern and northern blacks or when drawing comparisons among northern blacks over time (Liebersohn 1973). Such a distinction is crucial if residential segregation of blacks from whites is less characteristic of the second than of the first "generation" (in terms of nativity, northern residents of southern birth constitute the first generation; see Liebersohn 1973), as is the case among many other ethnic groups. In that instance, the labor markets accessible to the two groups may vary and tend to produce generational differences in occupational status and earnings.

Both regional and generational differences among blacks in the process of stratification produce pronounced inequalities in attainments within the black population. In fact, in recent cohorts the variability (inequality) of schooling is greater among blacks than among whites (Hauser and Featherman 1976). Native northern blacks enjoy longer schooling, higher occupational attainments, and a more status-differentiated labor market than do migrants to the North, although larger proportions of the former tend to be out of the labor force (Liebersohn and Wilkinson 1976; Long and Heltman 1975). Among men of the same age and schooling, migrants to the North appear to enjoy somewhat higher earnings than do the northern natives (Liebersohn and Wilkinson 1976; Crain and Weisman 1972; Long and Heltman 1975; Weiss and Williamson 1972, 1975).

However, since World War II the industrial and occupational compositions of the American North and South have become more similar (McKinney and Bourque 1971). Much of this convergence reflects strikingly rapid secular shifts of employment within the South—out of agriculture and into construction, manufacturing, and trade; from jobs as farmers and farm laborers to those as craftsmen and foremen, machine operators, and professional and technical workers. As the economies of the two regions converge, the processes of social stratification which allocate persons into positions in the economy and its socioeconomic hierarchy should become

- more homogeneous. This line of reasoning follows from theories of "convergence" and the "thesis of industrialism," which propose that a major driving force behind the division of labor, inequality, and the mechanisms of status inheritance and mobility between generations is the nature of a society's economy (e.g., Feldman and Moore 1962). If the social structures (viz., the economy and the associated system of status allocation) of two societies tend to converge owing to the technical and organizational requirements of their common economies, then it would not be unreasonable to expect regional variation in social stratification to disappear as the regional economies lose their distinctive characters. In particular, economic integration of blacks into the majority status system should be as evident in the South as in the North, and the recent socioeconomic differentiation *within* the black population should be general across regions.

In this paper we estimate basic life-cycle models of stratification as a first step toward understanding changing differences in the system of status allocation among American blacks in the last decade and toward a more credible theory of the relationships among economic expansion, internal differentiation, and racial-ethnic stratification in modern (post-industrial) society. We will demonstrate that between 1962 and 1973 black men in both the North and the South made progress toward integration into the majority stratification system. Progress has been most rapid among northern-born blacks who, by 1973, experienced a process of stratification like that of the white majority. Southern-born men who migrate to the North are in part able to escape an environment relatively unfavorable to achievement as regards earning attainments but fail to achieve occupational status commensurate with their years of schooling. Blacks who remain in the South have experienced the slowest progress. By 1973 the stratification system characteristic of southern blacks was comparable in many respects with that of northern-born blacks in 1962. Our evidence indicates that the South has historically been slow in upgrading its educational system in response to the demand for better educated labor that has followed its postwar (World War II) economic development. This institutional lag means that by 1973 the status allocation system experienced by southern blacks closely resembled that for northern-born blacks a decade earlier.

#### DATA

The data for this analysis are drawn from the 1962 and 1973 surveys, "Occupational Changes in a Generation" (hereafter, OCG-I and OCG-II), which were carried out in conjunction with the March demographic supplement to the Current Population Survey (CPS) in those two years (Blau and Duncan 1967; Featherman and Hauser 1975). The 1962 survey had

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a response rate of 83% to a four-page questionnaire which was left behind by the CPS interviewer. More than 20,000 men in the civilian noninstitutional population responded. In 1973, the eight-page OCG questionnaire was mailed out six months after the March CPS and was followed by mail, telephone, and personal callbacks. The respondents, comprising 88% of the target sample, included more than 33,500 men aged 20–65 in the civilian noninstitutional population. Also, in the 1973 sample blacks and persons of Spanish origin were sampled at about twice the rate of whites, and almost half the black men were interviewed personally. In this paper we draw age-constant intertemporal comparisons among black men in the postschooling, economically active years; therefore, we limit our analysis to men aged 25–64 in the experienced civilian labor forces of March 1962 and March 1973.<sup>2</sup>

### LEVELS OF SOCIOECONOMIC BACKGROUND AND ATTAINMENTS

Southern-born men had lower socioeconomic backgrounds than native northerners in both 1962 and 1973, with this relative disadvantage increasing over the period (table 1).<sup>3</sup> Native northerners more typically came

<sup>2</sup>The population frequencies of these men by region of residence and nativity in 1962 and 1973 are shown in table 1. All statistics presented in this paper are based on a sample size weighted to reflect true population proportions and adjusted by a sampling design factor to reflect departures from a simple random sample. Our use of regional labels follows conventions of the U.S. Census: North is Northeast, North Central, and West, while South is South.

<sup>3</sup>Paternal education is scaled in years completed according to the following recode of class intervals: no school, 0.0 years; elementary (1–4), 3.3 years; elementary (5–7), 6.3 years; elementary (8), 8.0 years; high school (1–3), 9.9 years; high school (4), 12.0 years; college (1–3), 13.8 years; college (4), 16.0 years; college (5 or more), 18.0 years. Number of siblings is the number of brothers and sisters (not counting respondent). Farm origin is a dummy variable, with a score of 1 indicating that respondent's father was a farmer, farm manager, farm laborer, or farm foreman. Broken family is a dummy variable, with 1 indicating that the respondent was not living with both parents most of the time up to age 16. Respondent's education is in single years, as reported to the CPS. Father's and respondent's occupation are scored according to Duncan's socioeconomic index for occupations (Duncan 1961). We believe that occupational socioeconomic status is the major dimension along which occupational positions persist from generation to generation (Featherman et al. 1975). "Father's" occupation refers to the mother or other household head where the father was absent. Number of weeks worked by the respondent during the previous year is scaled in weeks according to the following recode of class intervals: None, 0.0 weeks; 1–13, 7.0 weeks; 14–26, 20.0 weeks; 27–39, 33.0 weeks; 40–49, 43.5 weeks; 48–49, 48.5 weeks; 50–52, 51.0 weeks. Earnings are expressed in constant (1972) dollars. Years of work experience are estimated by the difference between age at the time of the survey and age at first job, as a proxy for increments to "human capital" via on-the-job training over the work career, assuming constant annual discount and investment rates. To represent decay of human capital as a function of age (owing to declining health, physical and mental capacities, and the disincentives to retrain at older ages), we square the experience proxy. See Hauser and Featherman (1974) and Mincer (1974) for theoretical rationales for these constructions.



TABLE 1

MEANS AND STANDARD DEVIATIONS OF BACKGROUND AND ATTAINMENT VARIABLES BY RESIDENCE GROUP,  
BLACK MEN AGED 25-64, EXPERIENCED CIVILIAN LABOR FORCE, MARCH 1962 AND MARCH 1973

VARIABLE	1962			1973		
	South	First- Generation North	Native North	South	First- Generation North	Native North
Father's occupation.....	14.39 (9.92)	16.58 (14.06)	21.45 (11.14)	13.82 (11.14)	15.69 (13.04)	23.73 (19.24)
Father's education.....	4.96 (2.30)	6.79 (4.12)	7.72 (3.89)	5.73 (3.62)	6.65 (3.78)	8.98 (3.66)
Farm background.....	0.59 (0.49)	0.43 (0.50)	0.25 (0.43)	0.48 (0.50)	0.40 (0.49)	0.08 (0.28)
Broken family.....	0.29 (0.46)	0.34 (0.48)	0.34 (0.48)	0.32 (0.47)	0.31 (0.46)	0.37 (0.48)
Number of siblings.....	5.51 (2.94)	4.93 (3.05)	4.45 (2.95)	5.28 (2.90)	5.34 (3.02)	4.05 (2.83)
Age.....	42.47 (10.67)	42.43 (10.34)	40.10 (10.62)	41.67 (11.24)	42.34 (10.60)	38.85 (10.14)
Age squared.....	1,917.16 (921.28)	1,907.03 (894.43)	1,719.79 (923.94)	1,862.92 (975.89)	1,905.20 (916.63)	1,611.45 (846.12)
Education.....	6.79 (4.14)	8.54 (3.54)	10.39 (3.22)	9.30 (3.83)	10.30 (3.04)	11.79 (2.71)
Occupation.....	15.42 (14.12)	17.97 (13.39)	25.36 (19.66)	22.64 (19.33)	25.29 (18.80)	36.46 (23.18)
Experience.....	25.08 (11.84)	24.24 (11.29)	21.79 (12.44)	22.67 (13.03)	23.00 (12.23)	18.77 (11.54)
Decay.....	768.80 (625.62)	714.43 (591.13)	628.10 (655.91)	683.45 (671.71)	678.45 (621.47)	485.23 (519.74)
Weeks worked.....	41.47 (15.00)	41.43 (15.47)	40.19 (17.18)	47.16 (9.75)	45.78 (11.84)	47.07 (10.72)
Earnings (\$)	2,895 (2,304)	4,554 (2,577)	5,141 (4,160)	6,217 (4,595)	8,355 (5,096)	9,141 (5,455)
Population totals (thousands)...	1,736	1,031	511	1,916	1,077	564

NOTE.—See n. 3 for definitions; standard deviations in parentheses.

from homes in which the father had more years of schooling and a higher-status occupation than did southern-born men.<sup>4</sup> The proportion with farm origins declined from 25% to 8% among the northern born over the period, while the percentage with farm backgrounds decreased from 59 to 48 among men still in the South and from 43 to 40 among first-generation northerners. Among the southern born, migration to the North indicated higher social origins, but this advantage declined over the period.

The native northerners had the highest education, and men currently residing in the South had completed the least schooling at both times. All groups increased their mean schooling between the surveys: The gains of both southern-born groups were about two years, and that of northern-born men was about a year and a half. These shifts narrowed educational differences among the groups, and within each group the variability of educational attainments declined over the period. Reductions in between- and within-group variability in schooling among blacks mirror national trends in educational inequality reported elsewhere (Hauser and Featherman 1976).

The changes in occupational attainments were of a very different sort. While each of the southern-born groups experienced about a seven-point increase on the Duncan scale, the native northerners gained 11 points. Northern-born blacks had an average Duncan score of 36.5 points in 1973—over 11 points higher than that of migrants to the North and 13 points higher than that of southern blacks. In contrast, the score of northern-born blacks is only about six points below the occupational status of white men nationally. Besides an increase in the differences among the residence groups over the period, the variation in occupational status within each group increased by about a quarter.

The earnings of the three groups (expressed in constant 1972 dollars) increased substantially over the 11 years between surveys, more than doubling for southerners and nearly doubling for the other two groups. Within-group variation in earnings also doubled, except for northern natives among whom it increased by one-third. It is in terms of mean earnings that the northern migrants do best relative to northern natives. This contrasts with their mean schooling, which is intermediate between the average educations of southerners and northerners, and with their mean occupational standing, which is nearly identical with the southerners' averages in both years.

Between 1962 and 1973 the average number of weeks worked increased

<sup>4</sup> Intracohort comparisons within groups between surveys suggest that reported father's occupational level is artificially inflated. Some of the seeming decrease in father's occupational status between 1962 and 1973 is therefore an artifact. We found no reason to believe that this artifact differentially characterizes the residence groups. Therefore, the relatively improved social origins of native northerners vis-à-vis the southern-born men are not artifactual.

by about six weeks for southerners and northern natives and about four weeks for migrants. At the same time variation in number of weeks worked decreased by one-quarter to one-third. We infer that blacks in the labor force were more firmly integrated into the national economy than in the previous period, regardless of their current residence or region of origin. By 1973 the slight advantage of migrant blacks over native northerners with regard to the number of weeks worked had been reversed. Unemployment is a cyclical phenomenon, and unemployment statistics from the 1960 and 1970 censuses generally show more sustained employment among northern migrants in the labor force (Lieberson and Wilkinson 1976; Long and Heltman 1975).

The changes in weeks worked, taken together with increased socioeconomic attainments among each of the groups, suggest that the structural integration of blacks into the majority reward system is a pervasive phenomenon. The native northerners started from a relatively favorable socioeconomic position, and their integration is more extensive. By 1973 blacks native to the North had achieved virtual parity in mean schooling with whites in the nation as a whole; their average occupational status differed from that of whites by only six points; but their earnings were about \$2,000 below the national white average. In comparison, the southern-born blacks made their most rapid gains in educational attainment and their slowest gains in occupational status (though they still gained on whites in this regard).

Such gross contrasts do not permit us to explain why these different rates of progress occurred, of course. It may be that the process which allocates persons to high or low statuses differs among the groups, with such differences changing over time. Alternatively, native northerners may be capitalizing on their more favorable social origins and achieved characteristics. To clarify these matters we shall examine separate regression models of attainments for each of the three groups. First, however, we turn our attention to the structure of mobility from father's to son's occupation for each of the groups (table 2).

#### OCCUPATIONAL ORIGINS, DESTINATIONS, AND THE STRUCTURE OF MOBILITY

Both southern-born groups experienced substantial structural mobility (minimum or net mobility)—about 44%—due to the changing occupational distributions from father to son. The minimum mobility required of native northerners to effect parity between the distributions of sons' and fathers' occupations is less than half that figure, indicating considerably greater similarity between the occupational distribution of fathers and sons among this group than among the men of southern birth. Since the three

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TABLE 2

OCCUPATIONAL MOBILITY STATISTICS FOR BLACK MEN AGED 25-64,  
EXPERIENCED CIVILIAN LABOR FORCE, MARCH 1973

RESIDENCE GROUP	CHANGING MAJOR OCCUPATIONAL GROUP (%)*				Mobility Index#
	Minimum†	Observed‡	Expected§	Circulation Mobility	
Observed matrix:					
South.....	44.6	84.5	89.2	39.9	89.5
First-generation North.....	43.8	87.6	88.9	43.8	97.1
Native North.....	21.8	82.4	84.1	60.6	97.3
Matrix adjusted to southern margins:					
South.....	44.6	84.5	89.2	39.9	89.5
First-generation North.....	44.6	89.0	89.2	44.4	99.5
Native North.....	44.6	87.0	89.2	42.4	95.1

\* The major occupation groups are defined as professional, technical and kindred, managers, officials, and proprietors; sales and clerical; craftsmen; operatives; service; farmers and farm managers; farm laborers; and nonfarm laborers.

† Net mobility; index of dissimilarity comparing row and column marginals.

‡ Percentage off main diagonal.

§ Percentage off the main diagonal under model of independence of rows and columns.

|| Circulation mobility = (observed - minimum).

# Mobility index =  $\frac{(\text{observed} - \text{minimum})}{(\text{expected} - \text{minimum})}$ .

groups have roughly similar levels of observed mobility, circulation mobility (i.e., the arithmetic difference between observed and structural mobility) is about 50% higher among native northerners. There is rather little tendency toward inheritance of a father's major occupational classification among any of the groups beyond that expected on the basis of chance.

A large part of these differences is attributable to the dissimilar origin and destination margins of the groups, particularly to the percentage in each which stems from farm origin. Group variation in that percentage produces characteristic patterns of recruitment to sons' occupations, but these group patterns of inflow attenuate or disappear when the mobility tables of the northern groups are adjusted to the margins of the southern matrix as a standard. While the mobility indices for these standardized (adjusted) matrices appear to indicate differences in the degree of intergenerational occupational inheritance (see last column of the lower panel of table 2), a rigorous test of differences among the groups in intergenerational mobility or stability of occupation fails to reject null ( $\chi^2_{LR} = 6.71$  with 2 df).

A log-linear analysis of the observed intergenerational matrices (table 3) indicates a group-constant association of origin and destination occupations across generations that is due in part to a tendency toward occupational inheritance and in part to noninherited socioeconomic association of origin and destination occupations, controlling for marginal variation

TABLE 3  
LOG-LINEAR TESTS OF VARIATION IN MOBILITY FROM FATHER'S OCCUPATION TO OWN OCCUPATION,  
BLACK MEN AGED 25-64, EXPERIENCED CIVILIAN LABOR FORCE, MARCH 1973

Model*	$\chi^2_{Ln}\dagger$	df	P	$\Delta\dagger$	$\chi^2_H/\chi^2_{H-8}$
A. Total occupation matrix:					
1. [F][O][R] (baseline).....	714.08	175	.000	19.34	100.00
2. [FR][OR] (occupation margins vary by group).....	264.85	147	.000	11.57	37.09
3. [FR][O] (origin margin varies by group).....	448.31	161	.000	15.89	62.78
4. [OR][F] (destination margin varies by group).....	530.63	161	.000	16.90	74.31
5. [FR][OR][FO] (occupation margins vary by group and place-constant interactions).....	65.16	98	>.5	5.68	9.13
6. A4 vs. A2 (net [FR]).....	265.78	14	.000	5.33	37.22
7. A3 vs. A4 (net [OR]).....	183.46	14	.000	4.32	25.69
8. A5 vs. A2 (net [FO]).....	199.69	49	.000	5.89	27.96
B. Occupation matrix with main diagonal blocked:					
1. [FR][OR].....	175.43	123	.000	8.71	24.57
2. [FR][OR][FO].....	55.98	82	>.5	4.84	7.84
3. B2 vs. B1 (net [FO]).....	119.45	41	.000	3.87	16.73
C. Hierarchical decomposition:					
1. B3 vs. A8 (net [FO] due to inheritance).....	80.24	8	.000	2.02	11.24
2. B2 vs. A5 (net group differences in inheritance).....	9.18	16	>.5	0.84	1.29

\* F = father's occupation (professional, technical, and kindred; manager, official, and proprietor/sales and clerical/craftsmen/operators/service/farmers and farm managers/farm laborers/nonfarm laborers); O = own 1973 occupation (same as father's occupation); R = residence group (South/first-generation North/native North).  
† Likelihood ratio  $\chi^2$ .  
‡ Index of dissimilarity.  
§  $\chi^2$  null as a percentage of total baseline  $\chi^2$ .

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among the groups. Fewer than 6% of the cases are misclassified by a model allowing marginal variation by group and group-constant association of origin and destination-occupation distributions. We find no group differences in occupational mobility, whether as regards gross father-son associations, the nature of inheritance of occupations, or in the likelihood of upward or downward mobility as compared to stability.

This observation of the essential invariance in the occupational association of fathers and sons among the three groups of blacks comes as no particular surprise, given a similar finding about apparent differences between black and white mobility matrices (Hauser, Featherman, and Hogan 1977, chap. 8), and intertemporal changes in the mobility of U.S. men (Hauser et al. 1975*b*). Thus, one reason for superior occupational attainments of northern natives is their superior occupational origins (Hauser et al. 1975*a*); another is their superior educational attainments.

### PROCESSES OF EDUCATIONAL ATTAINMENT

Models of educational attainment (table 4) display the familiar relationship of years of schooling to social origins (e.g., Hauser and Featherman 1974). In all groups in both years, higher social origins (e.g., father's occupation and education) are translated into the ability to continue schooling, whereas a farm background, broken family, and large number of siblings are handicaps to extended schooling. For each group the negative impact of farm background was reduced by about a year or more

TABLE 4  
REGRESSION ANALYSIS OF EDUCATIONAL ATTAINMENT BY RESIDENCE GROUP,  
BLACK MEN AGED 25-64, EXPERIENCED CIVILIAN LABOR FORCE,  
MARCH 1962 AND MARCH 1973

VARIABLE	1962			1973		
	South	First- Generation North	Native North	South	First- Generation North	Native North
Father's occupation . . .	0.058 (0.025)	-0.016 (0.019)	0.003 (0.021)	0.026 (0.010)	0.006 (0.009)	0.007 (0.009)
Father's education . . . .	0.268 (0.074)	0.224 (0.066)	0.238 (0.094)	0.342 (0.033)	0.225 (0.033)	0.145 (0.049)
Farm background . . . . .	-2.429 (0.494)	-2.607 (0.536)	-3.117 (0.832)	-1.665 (0.230)	-1.524 (0.258)	-1.853 (0.555)
Broken family . . . . .	-0.998 (0.519)	-0.620 (0.545)	-0.439 (0.708)	-0.536 (0.235)	-0.733 (0.250)	-0.532 (0.309)
Number of siblings . . . .	-0.128 (0.082)	0.027 (0.087)	-0.103 (0.120)	-0.060 (0.038)	-0.075 (0.040)	-0.145 (0.054)
Intercept . . . . .	7.065	8.466	9.870	8.275	9.946	11.265
R <sup>2</sup> . . . . .	.236	.226	.382	.236	.217	.164
Error of estimate . . . .	3.657	3.163	2.633	3.355	2.705	2.497

NOTE.—See n. 3 for definitions; approximate SEs in parentheses.

between 1962 and 1973. Consequently, over the same period in which farm origin was becoming a less common characteristic across groups, it was becoming a less important handicap to the educational achievement of blacks. In both years blacks in the South were able to capitalize on higher father's occupational status (and, conversely, to be more heavily penalized by the circumstances of low birth), whereas neither group in the North had been able to do so. This differential did decline between 1962 and 1973, and in any case it may be a reflection of the differential prevalence of a male head of household and of an occupation to be reported for the head. The increment to schooling from an additional year of father's (head's) education was about a quarter-year in 1962 for each group. By 1973 the southern men attained about a third of a year of schooling for each additional year of father's education, while among native northerners this relationship was only half as strong.<sup>5</sup> In all groups, educational inequality declined within categories of social origin (see errors of estimate in table 4), and absolute variability in schooling decreased (see standard deviations in table 1). Among blacks native to the North, inequality among levels of social origins also was reduced, loosening the relevance of such ascriptive categories for educational achievement (see  $R^2$  values in table 4). This group recapitulates the intercohort pattern in the majority population (see Hauser and Featherman 1976).<sup>6</sup>

Most of the educational advantage (as given in the comparison of mean years of school completed) of native northerners over southerners is due to their more favorable social origins (table 7).<sup>7</sup> To the extent that the processes of educational attainment differ among the groups and over time, the northern natives are more similar to the majority population (non-blacks) than are southern-born blacks. The differences between migrants

<sup>5</sup> These models of educational attainment, as well as those of occupational attainment, were also estimated for men aged 25-64 separately by residence group with the inclusion of control variables for age and age squared. The inclusion of such controls did not change the overall conclusions reached. Controls for age composition did tend to increase levels of explained variance substantially while also causing erratic fluctuations in the intercepts of the equations. We therefore chose to present the structural models of attainment excluding these controls (tables 5 and 6). In decomposing differences among the groups and intercohort shifts within groups (tables 7 and 8) we do include age controls, so that the small differences in age composition cannot contaminate our estimates.

<sup>6</sup> The education, occupation, and earnings attainment structural equation models were also estimated for men aged 25-34. The intracohort comparisons across residence groups in 1973 replicated the findings reported here for men 25-64. We do not report these findings in detail, nor do we attempt intracohort comparisons within residence groups between 1962 and 1973, because of the small samples such comparisons would entail.

<sup>7</sup> Without controls for age, differences in social origin account for 60% of the superior education of first-generation northerners in 1962 but only 51% by 1973. The comparable figures for northern natives are 58% and 84%. Standardization was carried out on the regression equations for southerners, into which the means for the other two groups (northern natives and first-generation northerners) were inserted.

TABLE 5

REGRESSION ANALYSIS OF OCCUPATIONAL ATTAINMENT BY RESIDENCE GROUP,  
BLACK MEN AGED 25-64, EXPERIENCED CIVILIAN LABOR FORCE,  
MARCH 1962 AND MARCH 1973

VARIABLE	1962			1973		
	South	First- Generation North	Native North	South	First- Generation North	Native North
Father's occupation.....	0.043 (.089)	0.055 (0.080)	- 0.029 (.147)	0.179 (.050)	0.119 (0.058)	0.139 (.071)
Father's education.....	0.208 (.273)	0.170 (.281)	- 0.015 (.690)	0.352 (.168)	0.378 (.216)	- 0.447 (.392)
Farm background	- 2.386 (1.856)	1.858 (2.378)	0.366 (6.428)	- 0.056 (1.143)	0.419 (1.657)	1.281 (4.437)
Broken family...	- 0.602 (1.877)	1.888 (2.256)	- 0.548 (4.959)	- 0.812 (1.143)	- 0.225 (1.565)	0.483 (2.435)
Number of siblings.....	0.150 (.297)	- 0.240 (.359)	- 0.500 (.844)	- 0.350 (.186)	- 0.159 (.250)	- 0.177 (.429)
Education.....	1.122 (.231)	1.040 (.336)	2.675 (.886)	2.364 (.154)	2.435 (.262)	4.616 (.469)
Intercept.....	6.900	6.762	0.614	- 1.684	- 3.396	-16.805
R <sup>2</sup> .....	.156	.088	.205	.299	.208	.302
Error of estimate	13.131	13.047	18.371	16.236	16.824	19.567

NOTE.—See n. 3 for definitions; approximate SEs in parentheses.

TABLE 6

REGRESSION ANALYSIS OF EARNINGS ATTAINMENT BY RESIDENCE GROUP,  
BLACK MEN AGED 25-64, EXPERIENCED CIVILIAN LABOR FORCE,  
MARCH 1962 AND MARCH 1973

VARIABLE	1962			1973		
	South	First- Generation North	Native North	South	First- Generation North	Native North
Father's occupation....	-3 (13)	-16 (13)	-31 (32)	-14 (12)	35 (16)	-18 (17)
Father's education....	7 (40)	59 (46)	5 (150)	-0 (41)	4 (59)	69 (95)
Farm background.....	-295 (268)	-712 (387)	95 (1,368)	-512 (281)	632 (444)	819 (1,078)
Broken family.....	253 (272)	-441 (368)	-642 (1,038)	-75 (280)	-284 (419)	22 (597)
Number of siblings.....	-30 (43)	1 (58)	37 (176)	-9 (46)	-41 (67)	24 (104)
Education.....	187 (37)	-99 (62)	120 (202)	228 (47)	300 (83)	409 (136)
Occupation.....	26 (9)	23 (13)	42 (28)	66 (8)	50 (11)	57 (15)
Experience.....	36 (45)	7 (65)	74 (155)	30 (39)	135 (61)	106 (85)
Decay.....	-0 (1)	-0 (1)	-2 (3)	-0 (1)	-2 (1)	-2 (2)
Weeks worked.....	65 (8)	101 (11)	112 (30)	120 (13)	140 (16)	169 (27)
Intercept.....	-1,982	1,135	-1,638	-2,916	-4,443	-7,253
R <sup>2</sup> .....	.409	.396	.338	.258	.234	.280
Error of estimate.....	1,811	2,072	3,684	3,978	4,499	4,712

NOTE.—See n. 3 for definitions; approximate SEs in parentheses.



TABLE 7

COMPONENTS OF DIFFERENCES BETWEEN SOCIAL AND ECONOMIC ATTAINMENTS OF FIRST- AND SECOND-GENERATION NORTHERN MEN AND SOUTHERN MEN, BLACKS AGED 25-64, EXPERIENCED CIVILIAN LABOR FORCE, MARCH 1962 AND MARCH 1973

ATTAINMENT AND COMPONENTS	1962		1973	
	First- Generation North	Native North	First- Generation North	Native North
Education:				
Social origins and age...	0.84 (48)	2.07 (57)	0.34 (34)	1.98 (80)
Residual.....	0.91 (52)	1.53 (43)	0.66 (66)	0.51 (20)
Total difference.....	1.75 (100)	3.60 (100)	1.00 (100)	2.49 (100)
Occupational status:				
Social origins and age...	1.98 (78)	3.83 (39)	1.80 (68)	8.31 (60)
Education.....	0.95 (37)	1.75 (18)	1.66 (63)	1.17 (8)
Residual.....	- 0.38 (-15)	4.36 (44)	- 0.81 (-31)	4.34 (31)
Total difference.....	2.55 (100)	9.94 (100)	2.65 (100)	13.82 (100)
Earnings:				
Social origins.....	262 (16)	505 (22)	260 (12)	1,063 (36)
Labor force attainments and attachment.....	191 (11)	389 (17)	12 (1)	459 (16)
Residual.....	1,207 (73)	1,352 (60)	1,865 (87)	1,402 (48)
Total difference.....	1,660 (100)	2,246 (100)	2,137 (100)	2,924 (100)

NOTE.—The structural equations for southern residence blacks are used for the standardization; percentages in parentheses.

TABLE 8

COMPONENTS OF CHANGE IN SOCIAL AND ECONOMIC ATTAINMENTS BETWEEN 1962 AND 1973, BLACK MEN AGED 25-64, EXPERIENCED CIVILIAN LABOR FORCE, BY RESIDENCE GROUP

Attainments and Components	South	First- Generation North	Native North
Education:			
Social origins and age.....	0.39 (16)	- 0.01 (-1)	0.54 (39)
Residual.....	2.11 (84)	1.77 (101)	0.86 (61)
Intercohort change.....	2.50 (100)	1.76 (100)	1.40 (100)
Occupation:			
Social origins and age.....	1.08 (15)	- 0.25 (-4)	2.13 (19)
Education.....	5.30 (73)	4.58 (63)	3.94 (35)
Residual.....	0.84 (12)	2.99 (41)	5.04 (45)
Intercohort change.....	7.22 (100)	7.32 (100)	11.11 (100)
Earnings:			
Social origins.....	240 (7)	-80 (-2)	188 (5)
Labor force attainments and attachment	1,517 (46)	1,366 (36)	1,998 (50)
Residual.....	1,565 (47)	2,515 (66)	1,814 (45)
Intercohort change.....	3,322 (100)	3,801 (100)	4,000 (100)

NOTE.—The structural equations for 1973 are used for the standardization; percentages in parentheses.

from the South and other southern blacks are more difficult to assess precisely, since we have no data on the region in which the migrants received their education.

We venture an interpretation of these data on educational achievement which argues that blacks native to the North have experienced greater structural integration into the majority socioeconomic system than have both southern-born groups. Whether one compares the mean length of schooling or the processes which convert the resources of socioeconomic background into education, it is the northern natives who more closely approximate the levels and processes of achievement among whites. Indeed, by 1973 the total gap in schooling between native black and white northerners was just over one-half year, and of this, virtually all (96%) of the difference represented the residual disadvantages of lower paternal occupation, education, and the like among blacks.

It would appear that the North has set the pattern for change in the socioeconomic system over the period of our inquiry, and it is in the North that such change has most clearly altered the socioeconomic relationships between the races. We marshal evidence in behalf of this thesis throughout the paper, but suffice it here to call attention to two conclusions from the analyses of educational achievement. First, in 1973 (but to a lesser degree in 1962) the cross-sectional comparisons among the residential groups resemble the intercohort trends reported elsewhere for the nation as a whole (i.e., Hauser and Featherman 1976; Featherman and Hauser 1976). That is, the intertemporal shifts in educational inequality and in the articulation of social origin and schooling are much like the time-constant intergroup comparisons of the black northern natives and the southern blacks: educational inequality is less in the North, both absolutely and as conditioned by social origins, and educational achievement is somewhat more random with respect to social origins in the North (save in 1962, when the impact of farm origins appears to weigh heavily in the value of  $R^2$ , relative to other characteristics of social origin).

Second, first-generation northern blacks are intermediate to the native northerners and to the southerners they left behind. That is, the regression coefficients for migrants to the North in the education equations of table 4 tend to lie between the coefficients for the other two groups. Further, the pattern of absolute and conditional inequality in schooling shows the first-generation northerners to have less variability than the southerners but more than the native northerners. Inasmuch as we know migration is selective but lack information on the timing of migration relative to the completion of schooling (so that we cannot infer the region of schooling for the migrants), it is impossible to comment further on regional bases for differential educational achievement. It is useful to anticipate ourselves at this point, however. The achievements of northern migrants in

earnings and occupational standing, relative to the other groups, suggest that the North continues to provide blacks with greater opportunities for socioeconomic integration. And this regional difference in the structure of opportunity has a bearing on black-white relations which is apart from any competitive advantage for achievement which falls to those "selected" as migrants.

It is important to note that intercohort upgrading of education between 1962 and 1973 in all regions and black groups stems primarily from exogenous secular increases in mean levels of schooling, rather than from any dramatic shifts in the distributions of social origins or major change in the relationships between socioeconomic background and schooling. The relevant decomposition appears in table 8, upper panel. Here we standardize on the 1973 regression equations for each group and insert the appropriate differences in means (1962 vs. 1973) into the equation. For example, among southerners, the intercohort shift of 2.50 years of education hardly reflects compositional change. Rather, 2.11 of the 2.50 years represent change in the regression equations linking social origins to schooling. But an examination of these equations in table 4 indicates that a major source of change in coefficients is in the regression constant. Where change in process has occurred, it has involved the declining role of farm background. Again, the rather stable set of net associations among characteristics of socioeconomic background and schooling within each of the three black groups is consistent with previous analysis of the national population at large (Hauser and Featherman 1976).

#### PROCESSES OF OCCUPATIONAL STATUS ATTAINMENT

We have described the upgrading of occupational status for each group, most apparent among native northerners, and the increase in variance in occupational status for blacks between 1962 and 1973. In part because blacks ceased to be clustered at the bottom of the occupational hierarchy as unskilled labor, by 1973 there was a stronger linkage of occupational status and both social origins and education (table 5).

In 1962 black men's social origins (as indicated by fathers' education and occupation, farm background, intactness of parental family, and number of siblings) were unrelated to their occupational attainments, once educational differences were controlled. Among both southern-born groups an additional year of schooling converted into one additional point on the socioeconomic index of occupational status, whereas the net effect of schooling was more than twice as large for blacks native to the North. The low levels of explained variance among both southern-born groups ( $R^2 \simeq .08-.16$ ) in 1962 are attributable to the essential invariance of occupational attainment by social origins and education. This situation

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contrasts with that of the native northerners, for whom the relationship between schooling and occupational achievement is stronger and for whom the absolute variance in occupational status is 40% greater than in the southern group.

By 1973 there was a much closer articulation of occupational status with social origins and education among blacks throughout the nation (Featherman and Hauser 1976), but the degree of this intercohort change varied by residence group. Across all groups the structure of family of origin (*viz.*, sibship size, intactness) remained nonsignificant, as did the effects of a farm origin and paternal education, net of father's occupational status. But by this latter date the net effect of father's occupational status had increased. Table 5 shows the largest intercohort increase among blacks native to the North ( $-0.029$  vs.  $0.139$ ), but the effect of paternal occupational status is statistically significant across all groups, even among blacks of equivalent schooling. The biggest intertemporal change is in the returns to schooling in the form of occupational status, which more than double for each southern-born group and which nearly double for the northern natives. In 1973, among both southern-born groups an additional year of schooling increased occupational status by about 2.5 points, while the return was 4.6 points among the northern natives. Among all whites (nonblacks) aged 25-64 in the ECLF of 1973 the occupational return to an additional year of schooling is 4.3 points (Featherman and Hauser 1976).

Thus, the superior occupational attainments of native northern blacks compared with southern-born blacks are due to their relatively advantageous social origins, superior educational attainments, and greater capacity to translate that schooling into occupational attainments in the northern labor market. Because their occupational returns to education are similar to those of whites in the nation as a whole, and because their mean level of educational attainment is only slightly below the white average, the occupational level of these second- (and third-, etc.) generation northern blacks is only six points below the mean Duncan score of all nonblacks (42.58 vs. 36.46). We hasten to remind the reader that our comparison is among men in the ECLF and therefore excludes men not in the labor force.

An exact decomposition of the sources of the occupational status differences among the three black groups (table 7) indicates that the advantage of migrants over southerners, 2.6 points on the Duncan scale, is accounted for entirely by their superior social origins and schooling in both survey years. The regression models of table 5 indicate no significant differences in occupational returns to socioeconomic background and education between these two southern-born groups. The negative residual in the decomposition in table 7 stems from the slightly lower occupational

attainments of migrants to the North compared with men of equivalent social origins and mean schooling who remain in the South. This finding is rather surprising in that it indicates that movement of blacks from the South to the North failed to upgrade occupational attainments of the first generation, relative to comparable men who stayed behind.

In stark contrast stand the northern-born blacks. In 1962 only about 56% of their 10-point Duncan-score advantage over southerners was due to superior social origins and education; the remaining 44% represented higher occupational returns to additional schooling and other differences in the process of occupational stratification between the groups. By 1973 about 4.3 points of the higher mean status of these men are due to higher returns to education, while fully 9.5 points of the 13.8-point advantage are attributable to their superior social origins (8.3 points) and educational attainments (1.2 points). Native northerners are thus born into relatively advantageous social origins and are able to translate these into superior educational attainments, which in turn provide substantially greater occupational returns than accrue to either southern-born group.<sup>8</sup>

Rising mean education in the North and the South is important in accounting for the intercohort improvements in occupational standing from 1962 to 1973 among all categories of blacks, but especially among the southern-born men (see table 8). Increased returns to education (but also socioeconomic background, especially paternal occupation) account for about two-fifths of the upgrading of occupational achievement for both groups residing in the North. This decomposition of change suggests that the educational system in the South has lagged behind that in the North in providing blacks with the amount and quality of schooling which is requisite for employment in an urban-industrial market such as has obtained in the North for some decades. By 1973, the South had begun catching up with the North in industrialization, and the educational system and the schooling of blacks in the South seem to have changed commensurately. For example, the greatest intercohort shift in mean education across all groups is for the South (table 8). Such relatively rapid changes in the educational composition of the southern black population show themselves in the more forceful bearing of shifts in schooling on occupational change in the two southern-born groups than in the group native to the North. The northern school systems may have provided a set of credentials for black workers in an urban-industrial setting at an earlier date, so that the smaller intercohort shift in mean education was a lesser factor in the rather large rise (11.1 points on the Duncan scale) in mean occupational achievement for blacks native to the North. It would appear that northern labor markets

<sup>8</sup> Without controls for age, differences in social origins and education account for 107% of the superior occupational attainments of migrants in 1962 and 114% in 1973. The comparable figures for northern natives are 56% and 67%.

were first to respond somewhat universalistically to a growing supply of educated blacks. Indeed, we tend to see the South as lagging behind the North by almost a decade (compare the means and standard deviations for education and occupation in table 1 for native northerners in 1962 with equivalent statistics for southerners in 1973; compare the regression equations and related statistics in table 5 for these same two groups).

Again, the evidence suggests that blacks native to the North are first to experience shifts in their relative positions in the system of socioeconomic stratification—shifts which occur subsequently for blacks in other regions. This interpretation is consistent with the idea that structural integration of working blacks into the economy may follow (or at least be correlated with) economic development and change.

Migrants to the North—the first-generation northern blacks—are in apparent anomaly in this analysis and interpretation of occupational change. Relative to men of equal qualification and social origins in the South, the first-generation northerner suffers a loss in occupational standing by migrating. Yet this loss must be seen in a more complete context. On the one hand, had they remained behind these relatively more highly educated southerners might not have been able to secure jobs commensurate with their resources, given the now larger supply of labor and (presumably) a constant demand. On the other hand, migration to the North can be seen as an investment, at least for the schooling and returns to northern education for the children—the second generation. And as we report in the next section, regional differences in earnings may in themselves account for this apparent “willingness” of migrants to take an occupational status “loss.”

#### PROCESSES OF EARNINGS ATTAINMENT

Our models indicate the presence in 1962 of few regional differences in the process of earnings attainments among the groups (table 6). By 1973 there were substantial differences in that process, and the three groups do differ in levels of earnings if one controls for social origins, education, occupation, years of experience, and number of weeks employed during the year. Neither survey shows social origins to have direct effects on a man's earnings regardless of his residence group.

In 1962 an additional year of schooling or an additional point of occupational status increased earnings significantly only among southern men. For both groups of northern men there is no clear evidence that either a higher education or higher-status job increased earnings. The number of weeks worked during the year is the only important determinant of a man's annual earnings, producing the high levels of explained variance in our models. An examination of equations which omit this variable produced roughly similar estimates of returns to occupation, education, and social origins, so

these models are not shown. At this earlier time an additional week's work increased earnings by \$100 for a black working in the North but only \$65 for one working in the South, indicating the crucial role played by regional differences in wage rates.

By 1973 both the effect of schooling on earnings and the effect of years of labor force experience had increased substantially for each group, as did constant-dollar returns to occupational status. Native northern blacks appear to have reaped greater returns to investments in education than either southern-born group. The northern natives earned less for each additional year of labor force experience than did the migrants, but the major contrast is the lack of any returns to experience among men remaining in the South. This might be related to differing industrial compositions of the regions and to lower levels of unionization in the South. The native northerners continued to enjoy higher weekly earnings than either southern or first-generation northern men, with the position of the migrants relative to the native northerners declining somewhat. The net earnings for an additional week of work during 1972 were \$120 for southerners, \$140 for first-generation northerners, and \$169 for northern natives.

When the \$786 earnings advantage of the natives over the migrants is decomposed (standardizing on the equations for the migrants), \$772 is accounted for by their superior social origins and \$438 by their superior attainments and labor force experiences. This leaves a residual of —\$424, indicating that black natives earn less than would migrants to the North were they to enjoy similar characteristics. This process difference is not accounted for by the returns to education, occupation, or weeks worked, since such returns are at least as high for natives of the North. The small advantage of migrants to the North may be due to more hours of work per week (unspecified in our models) or to a greater likelihood of employment at a second job or at multiple part-time jobs. It may be that migrants to the North who fail to achieve relatively high earnings return to the South, leaving behind a pool of men doubly selected for success among first-generation northerners—men with whom northern natives compare unfavorably (Lieberson and Wilkinson 1976). At any rate, this is the same finding observed by Long and Heltman (1975) and others. Our more extensive models of earnings have failed to locate the source of this seeming anomaly. As part of the OCG-II project, a replicate survey of black men in the Milwaukee metropolitan area was conducted. This survey obtained a variety of social-psychological measures relating to attitudes toward work as well as a variety of other information that might prove useful in accounting for a man's earnings. We hope to make use of such information in future research in order to discover the sources of the higher earnings intercepts of migrants to the North over native northerners.

For 1962 about three-quarters of the earnings advantage of migrants

to the North over southerners (see table 7) is due to differences in the process of earnings attainments, with the remainder attributable to higher social origins and socioeconomic attainments. The comparable figure in the comparison with southerners is 60% among native northerners. By 1973 these patterns were more divergent, with 87% of the advantage of migrants to the North but less than half of the northern-born advantage due to differences in the earnings attainment processes. Whereas in the attainment of occupational status the first-generation northerners gained no advantage over that provided by their higher social origins and schooling by moving from the South, nearly all of their advantage in earnings over men remaining in the South is attributable to the higher returns to schooling and experience and to the wage structure obtaining in a northern setting.

About equal proportions of the increase in earnings from 1962 to 1973 are due to improvements in labor force attainment and attachment (including education and all other variables in our models except those indexing social origins) and to changes in the process of earnings attainment among men living in their region of birth (table 8). Among the migrants, fully two-thirds of the improvement in earnings over the period is due to intercohort shifts in the process of earnings attainment, including secular changes in earnings levels between the periods. The migrants, whose educational and occupational attainments are slightly higher than those of southerners, and whose average number of weeks worked are slightly fewer, gain roughly the same dollar increases in earnings due to upgrading in such characteristics as do the southerners (\$1,517 vs. \$1,366 from table 8). Their superior overall improvements in earnings are attributable to more favorable changes in process over time than those experienced by southerners, perhaps indicating that the integration of blacks into the earnings reward system is proceeding more quickly among the migrants.<sup>9</sup>

Again, we find in these data a basis for our argument that the South lags behind the North in the structural integration of black workers. A simple inspection of the mean earnings (table 1) shows a monotonic increase both within year from South to native North and across years and residence groups (from 1962 South to 1973 native North). Since these figures are in constant (1972) dollars, they reflect estimates of levels and growth in productivity, and as such they suggest that the South of 1973 is not unlike the North (as given in the data for natives) in 1962. A similar interpretation follows from an analogous reading of the lines in table 1 for mean education and occupational socioeconomic status. Doubt-

<sup>9</sup> We performed an analysis of the determinants of relative earnings position (log earnings) parallel to the earnings analysis. The results were roughly similar to those for earnings, but their addition here seemed uninformative and uninteresting. We therefore chose to omit these log earnings models from our discussion.



less these figures represent different industrial compositions and changes therein by region. But they are coincident with other important regional differences, as is demonstrated by our results for earnings among black men in the experienced labor force. Both absolute variability in earnings (see standard deviations in table 1) and variability conditioned on socioeconomic background, education, occupation, and labor experience (see errors of estimate in table 6) are greater in the North than in the South, with the clearest contrast between the men residing in their regions of birth. Opportunities for economic achievement for blacks are more prevalent in the North, and that in itself may be a sufficient inducement for migration to the North. But for second- and third-generation natives in the North, the process of earnings attainment is based on universalistic grounds to a far greater degree than in the South, even in 1973. Indeed the contrast in the coefficients for education and experience in table 6 is more striking for the two native groups in 1973 than in 1962. If the first-generation northerners suffer, it is largely in their economic (and occupational) returns to schooling. This may not signal the ineffectiveness of "universalism" for this group as much as it may the allegedly poorer quality of southern education for an urban-industrial market. (Alternatively, it may reflect the disutility of southern linguistic patterns in the North, the effect of ghetto segregation of recent migrants on their knowledge of and success in northern markets, and other hypothetical contingencies which "discount" the level of black schooling within the first generation.)

#### SUMMARY AND CONCLUSIONS

Previous research has demonstrated a convergence of the educational and occupational attainments of blacks with those of whites. Part of this convergence is attributable to improved social origins (in the case of education), but in part it is due to the development of a system of stratification across generations among blacks that is more like the process of status allocation characteristic of the majority population. Between 1962 and 1973 age-constant comparisons of blacks indicate an increase in mean levels of education, occupation, and earnings, with a lesser degree of educational inequality and a greater amount of occupational and earnings variability by 1973. This pattern provides suggestive evidence of increased internal differentiation and socioeconomic inequality within the black minority, raising the issue of the uniformity of the stratification system and the crystallization of rewards among different groups of blacks during the course of economic expansion. In particular, we have sought to address the question whether blacks have in recent years been able to escape an environment unfavorable to the attainment of education, occupation, and earnings by migration from the South to the urban-industrial centers of

the North. Furthermore, did such migration improve the operation of universalistic criteria in the attainment of occupational and earnings rewards? Finally, do the experiences of blacks who were born in the North differ, either favorably or unfavorably, from those who migrated to the North?

This paper has provided complex, but generally affirmative, answers to these questions. Native northern blacks have educational attainments superior to those of blacks in the South, but this advantage has been decreasing through time. By 1973 most of the educational advantage of the Northern natives was attributable to their more favorable social origins, in particular, to the smaller proportion which is of farm origin. The educational attainments of the southern-born men who migrate to the North were intermediate to those of the other two groups. A part of their advantage over men who remained in the South is a result of social origins, but a portion of the difference is an artifact of the self-selection of better-educated men as migrants. By 1973 the process of educational attainment characterizing native black northerners did not differ from that of the American white majority.

Blacks from all three groups experienced a similar degree of socioeconomic association of occupations between father and son. Because so many of the southern-born and so few of the northern-born men had farm backgrounds the occupational distributions of fathers and sons differed most among the former men, and the required and observed levels of occupational mobility were greatest among them. The heavy representation of men of farm background among the southern born results in part in their disproportionate concentration in low-status occupations.

Between 1962 and 1973 there was considerable upgrading of the occupational status of blacks in each group, although by far the largest improvements were among northern natives. Likewise there were increases in the variability of occupational status over the decade for each group. The greater articulation of social origins and education with occupational attainment characteristic of blacks as a whole is a pervasive phenomenon experienced by each group. But the changes, both in levels and in process, were most dramatic among the northern natives. Not only did these men enjoy higher social origins and education than those born in the South, but their ability to capitalize on such characteristics increased over the decade. By 1973 both the process of occupational attainment and the ultimate levels of attainment of native northern blacks were more like those of the American white majority than those of either southern-born black group. In contrast, the slight advantage of the migrants to the North over southerners is attributable entirely to more favorable social backgrounds.

Finally, the earnings models indicated an increased operation over the

interval of meritocratic criteria such as education, occupation, and number of weeks employed in the determination of earnings among each of the groups. By 1973 the major reason other than favorable origins and education for the higher annual earnings of men in the North was the superior wage and salary rates paid in that region. Migration to the North may have increased the operation of universalistic achievement criteria for earnings only slightly, but it did permit the migrants to enjoy the advantage of higher northern pay scales.

As the theories of race relations reviewed at the beginning of this paper led us to expect, southern black men have been able to increase their own earnings by moving to the North, even though they have failed to upgrade their occupational achievements. Additionally, men who move to the North and have children born to them there are able to assist their children in capitalizing on better social origins to complete more years of schooling. The second generation is able to translate these advantages into superior occupational achievements because they are more subject to universalistic criteria of achievement than are men born in the South, whatever their region of residence. They also enjoy higher rates of earnings characteristic of the North—rates similar to those paid men who migrate North.

The present analysis provides evidence that economic expansion has been coterminous with the internal differentiation of the black population, with the development of more distinct socioeconomic strata, with the greater stability of inequalities between generations of black men, and with gains toward the socioeconomic integration of experienced workers. That these changes have been more extensive in the North and have predated similar developments in the South is consistent with our speculations about the sources and direction of recent changes in the socioeconomic stratification of the races.

In terms of the dynamics of racial inequality, the northward migration of blacks provides some immediate benefits while also increasing the ultimate proportion of the next generation that is northern born. These second-generation northerners experience processes of stratification or reward allocation that are much more similar to those of the white majority than are those of any other blacks. It is among such men that the convergence of stratification processes between the races, as well as convergence of attainment levels, has been disproportionately concentrated. The same trends have been typical of southern-born blacks but are not nearly as pronounced. In the past several decades, the migration of blacks to the North has reduced interracial inequalities in the attainment of education, occupation, and earnings while increasing the degree of intraracial inequality.

Current trends toward the convergence of the industrial and occupa-

tional structure of the South with that of the North may open new opportunities for the structural integration of black workers (e.g., McKinney and Bourque 1971). To the extent that the consequences for integration of such convergence may take time to appear, our analysis would not have detected it.

## REFERENCES

- Balan, Jorge, Harley L. Browning, and Elizabeth Jelin. 1973. *Men in a Developing Society: Geographic and Social Mobility in Monterrey, Mexico*. Austin: University of Texas Press.
- Banton, Michael. 1967. *Race Relations*. New York: Basic.
- Blau, Peter M., and Otis Dudley Duncan. 1967. *The American Occupational Structure*. New York: Wiley.
- Crain, Robert L., and Carol Sachs Weisman. 1972. *Discrimination, Personality, and Achievement: A Survey of Northern Blacks*. New York: Seminar.
- Duncan, Otis Dudley. 1961. "A Socioeconomic Index for All Occupations." Pp. 109-38 in *Occupations and Social Status*, edited by A. J. Reiss, Jr. New York: Free Press.
- . 1968. "Inheritance of Poverty or Inheritance of Race?" Pp. 85-110 in *On Understanding Poverty*, edited by D. P. Moynihan. New York: Basic.
- Eldridge, Hope T., and Dorothy Swaine Thomas. 1964. *Population Redistribution and Economic Growth: United States, 1870-1950*. Vol. 3. *Demographic Analyses and Interrelations*, edited by S. S. Kuznets and D. S. Thomas. Philadelphia: American Philosophical Society.
- Featherman, David L., and Robert M. Hauser. 1975. "Design for a Replicate Study of Social Mobility in the United States." Pp. 219-51 in *Social Indicator Models*, edited by K. C. Land and S. Spilerman. New York: Sage.
- . 1976. "Changes in the Socioeconomic Stratification of the Races, 1962-1973." *American Journal of Sociology* 82 (November): 621-51.
- Featherman, David L., F. Lancaster Jones, and Robert M. Hauser. 1975. "Assumptions of Social Mobility Research in the U. S.: The Case of Occupational Status." *Social Science Research* 4 (December): 329-60.
- Feldman, Arnold, and Wilbert Moore. 1962. "Industrialization and Industrialism: Convergence and Differentiation." In *Transactions of the Fifth World Congress of Sociology*. Washington, D.C.: International Sociological Association.
- Goldscheider, Calvin. 1971. *Population, Modernization, and Social Structure*. Boston: Little, Brown.
- Hauser, Robert M., and David L. Featherman. 1974. "Socioeconomic Achievements of U.S. Men, 1962 to 1972." *Science* 185 (July): 325-31.
- . 1976. "Equality of Schooling: Trends and Prospects." *Sociology of Education* 49 (April): 99-120.
- Hauser, Robert M., David L. Featherman, and Dennis P. Hogan. 1977. "Sex in the Structure of Occupational Mobility in the U.S., 1962." Pp. 191-216 in *The Process of Stratification: Trends and Analyses*. New York: Academic Press.
- Hauser, Robert M., J. N. Koffel, H. P. Travis, and P. J. Dickinson. 1975a. "Structural Changes in Occupational Mobility among Men in the United States." *American Sociological Review* 40 (October): 585-98.
- . 1975b. "Temporal Change in Occupational Mobility: Evidence for Men in the United States." *American Sociological Review* 40 (June): 279-97.
- Kinloch, Graham C. 1974. *The Dynamics of Race Relations: A Sociological Analysis*. New York: McGraw-Hill.
- Liebertson, Stanley. 1973. "Generational Differences among Blacks in the North." *American Journal of Sociology* 79 (November): 550-65.
- Liebertson, Stanley, and Christy A. Wilkinson. 1976. "A Comparison between Northern and Southern Blacks Residing in the North." *Demography* 13 (May): 199-224.

## American Journal of Sociology

- \* Long, Larry H., and Lynne R. Heltman. 1975. "Migration and Income Differences between Black and White Men in the North." *American Journal of Sociology* 80 (May): 1391-1409.
- McKinney, John, and Linda B. Bourque. 1971. "The Changing South: National Incorporation of a Region." *American Sociological Review* 36 (June): 399-411.
- Middleton, Russell. 1976. "Regional Differences in Prejudice." *American Sociological Review* 41 (February): 94-117.
- Mincer, J. 1974. *Schooling, Experience, and Earnings*. New York: National Bureau of Economic Research.
- Myrdal, Gunnar. 1944. *An American Dilemma*. New York: McGraw-Hill.
- Newman, William M. 1973. *American Pluralism: A Study of Minority Groups and Social Theory*. New York: Harcourt, Brace & World.
- Schermerhorn, R. A. 1970. *Comparative Ethnic Relations: A Framework for Theory and Research*. New York: Random House.
- Siegel, Paul M. 1965. "On the Cost of Being a Negro." *Sociological Inquiry* 35 (Winter): 41-57.
- Taeuber, Karl E., and Alma F. Taeuber. 1965. *Negroes in Cities*. Chicago: Aldine.
- U.S. Bureau of the Census. 1971. *People of the United States in the 20th Century*. Census monograph by Irene B. Taeuber and Conrad Taeuber. Washington, D.C.: Government Printing Office.
- van den Berghe, Pierre L. 1967. *Race and Racism: A Comparative Perspective*. New York: Wiley.
- Weiss, Leonard, and Jeffrey G. Williamson. 1972. "Black Education, Earnings, and Interregional Migration: Some New Evidence." *American Economic Review* 62 (June): 372-83.
- . 1975. "Black Education, Earnings, and Interregional Migration: A Comment and Some New Evidence." *American Economic Review* 65 (March): 236-40.

# Some Comments on the Causal Analysis of Surveys with Log-linear Models<sup>1</sup>

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Recent developments in the analysis of cross-classified data have given social scientists powerful tools for investigating relationships among qualitative variables. Since investigators can analyze cross-classifications with concepts similar to those used in regression and path analysis, they may feel that the level of measurement problem has been solved. This study shows, however, that at least one approach, log-linear analysis, does not by itself solve every measurement problem. Unless the technique is applied carefully, it may produce highly misleading results. The conditions under which log-linear models can be misleading are explored within the context of causal analysis of surveys.

Like their colleagues in the natural sciences, social scientists want to build models. Unfortunately, because their subject matter is human behavior they face formidable problems, particularly in regard to measurement. Investigators frequently have to measure complex phenomena such as attitudes with rather crude classification schemes. In the past, purely categorical data have been difficult to analyze, especially when the analyst's goal was the construction of multivariate models. Faced with these difficulties social scientists have relied on relatively simple procedures—test-factor stratification, for example (Hyman 1955; Rosenberg 1968)—or ignored the level of measurement by treating category scores as if they were interval scales (Labovitz 1970).

Thus, recent developments in contingency table analysis seem to be a godsend. For they appear to put the statistical investigation of cross-classifications on roughly the same footing as the analysis of quantitative data. Leo Goodman, for instance, describes in a series of articles a model-building technique for multidimensional tables (see Goodman 1970, 1971, 1972a, 1972b, 1973a, 1973b, 1974a, 1974b, 1975). The methods he describes, often referred to as log-linear models, not only help one find bivariate relationships and higher-order interactions in complex tables—a useful enough function—but, he claims, they can be viewed also as analogous to the analysis of simul-

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\*taneous-equations models. At last, social scientists may feel, the exploration of polls and surveys has caught up with causal and path analysis.

The outpouring of papers, articles, and books attests to the growing interest in the study of cross-classifications. In addition to Goodman's, several related techniques have been advanced.<sup>2</sup> And there has certainly been no lack of an audience for any of them. Social scientists are rapidly turning to these procedures in an effort to resolve problems that previously went unanswered.<sup>3</sup> This acceptance, not surprising when given the ubiquity of categorical data, has been facilitated by the widespread availability of computer programs for analyzing complex contingency tables.

Hence researchers may feel that they now have the tools with which to interpret cross-classifications unambiguously, using the same concepts that they employ in studying interval-level data. Yet it may now be time to temper this enthusiasm with a note of caution.

Caution is required because the new techniques may actually solve many fewer problems than one might suppose. As will be seen, the difficulty lies not in the methods, which are perfectly well formulated and justified, but in the kinds of data to which they are applied. Contrary to the impression one gets from reading the articles describing these procedures, one cannot stop worrying about the level of measurement simply because one has a technique that appears to be developed exclusively for categorical data. To the extent that nominal and ordinal scales represent measurement error, the question naturally arises: What do and can these methods tell us about the underlying phenomena? Although they advance our understanding in some respects, they still leave many issues unresolved. In fact, some problems that have always plagued contingency table analysis persist. Consequently, we will find that unless these approaches are used carefully and selectively, they can be quite misleading.

My purpose here is to illustrate how the uncritical application of these techniques can lead to distorted, even erroneous, conclusions. In order to keep the presentation simple and brief, I concentrate on log-linear analysis,

<sup>2</sup> Among the better known approaches are those based on weighted least-squares—Grizzle, Starmer, and Koch (1969), Koch and Reinfurt (1971), Grizzle and Williams (1972), Koch, Imrey, and Reinfurt (1972), Lehnert and Koch (1974b), and Theil (1970); those based on information theory—Ku and Kullback (1968), Ku, Varner, and Kullback (1971), and Kullback (1973, 1974); those based on dummy variable analysis—Suits (1957), Andrews, Morgan, and Sonquist (1967), Andrews and Messenger (1973), and Miller and Erickson (1974); those based on graph theory—Davis (1975); and those based on Bayesian perspectives—Lindley (1964). There are in addition numerous miscellaneous approaches, among them those of Coleman (1964) and Lindsey (1973).

<sup>3</sup> Articles based on the applications of the new methods of categorical data analysis include Davis (1974b), Giles et al. (1976), Guest (1974), Johnson and Koch (1971), Knoke (1974), Kritzer (1975), Lehnert (1972), Lehnert and Koch (1974a), and Scheuren (1973). Also, innumerable papers have been presented at recent meetings of sociology and political science associations. Many social science conventions now have panels devoted to the analysis of contingency tables.

but my remarks pertain in a general fashion to the other methods as well. Although the ideas are not novel—Goodman himself has discussed some of them—they have not been adequately understood by the numerous investigators who have uncritically carried out his procedures. After making this assessment, we should have a clearer appreciation of the limits of their valid application.

#### MODELS FOR THE ANALYSIS OF CATEGORICAL DATA

Since Goodman gives a thorough description of log-linear models, I will only highlight the main points (also see Davis 1974a; Fienberg 1970).

Beginning with a multidimensional population cross-classification one builds a model for its expected frequencies—or some function of them such as the odds—by introducing so-called main and interaction effects. Consider for example a three-way  $I \times J \times K$  table with expected frequencies  $F_{ijk}$ . A “saturated” model (that is, one containing a full set of terms) is

$$F_{ijk} = \eta \tau_i^A \tau_j^B \tau_k^C \tau_{ij}^{AB} \tau_{ik}^{AC} \tau_{jk}^{BC} \tau_{ijk}^{ABC}, \quad (1)$$

where the  $\tau$ 's measure main and interaction effects of the variables on the  $F_{ijk}$  and  $\eta$  is introduced to insure that the  $F_{ijk}$  sum to  $n$ , the table total (Goodman 1973b, p. 1142).

It is sometimes more convenient to work with the natural logarithm of the expected frequencies,  $G_{ijk}$ . Thus, corresponding to model (1) we have

$$G_{ijk} = \log(F_{ijk}) = \theta + \lambda_i^A + \lambda_j^B + \lambda_k^C + \lambda_{ij}^{AB} + \lambda_{ik}^{AC} + \lambda_{jk}^{BC} + \lambda_{ijk}^{ABC}, \quad (2)$$

where

$$\theta = \log(\eta), \lambda_i^A = \log(\tau_i^A), \text{ etc.} \quad (3)$$

“Unsaturated” models contain fewer parameters. The only models Goodman considers, “hierarchical models,” have the property that if a model includes terms representing the interaction between, say,  $A$  and  $B$  (that is,  $\lambda_{ij}^{AB}$ ), it must also include their lower-order relatives (that is,  $\lambda_i^A$  and  $\lambda_j^B$ ).

Following Goodman and others, a model will be described not by the  $\tau$ 's or  $\lambda$ 's, but by the set of “fitted marginals” tables used in estimating the expected frequencies under that model. Thus, the model

$$G_{ijk} = \theta + \lambda_i^A + \lambda_j^B + \lambda_k^C + \lambda_{ij}^{AB} + \lambda_{ik}^{AC} + \lambda_{jk}^{BC} \quad (4)$$

will be denoted simply  $\{AB\}, \{AC\}, \{BC\}$  (see Goodman 1970 for details).

#### Some Remarks on These Models

Note first that the models pertain to population cross-classifications. In applying a model to a set of data one assumes that the variables are really dis-



create, though presumably they can have any number of categories. As will be seen shortly, this seemingly innocuous assumption has extremely important implications.

The parameters in the equations are perhaps best interpreted as indicators of the strength and type of relationships existing among the variables. (Terms involving a single variable can be viewed as measures of skewness [Davis 1974b].) At the outset of a study, investigators will probably be most interested in the presence or absence of various terms rather than their specific numerical values, because the appearance of a  $\lambda$  parameter in a model is an assertion that the relevant variables are related in a particular way. Conversely, the absence of a term suggests (conditional) independence or the lack of a higher-order interaction. All of these statements have substantive significance, and one therefore wants to be sure that the inclusion of a term corresponds to the true state of affairs. After identifying the correct linkages, he can then estimate the numerical values of the coefficients.

But notice that the  $\tau$ 's or  $\lambda$ 's are really families of parameters. Hence, it requires vectors and matrices to describe them. The required number can be reduced somewhat since, as in analysis of variance, the terms are defined so that, for example,

$$\sum_i \lambda_i^A = \sum_j \lambda_j^B = \sum_i \lambda_{ij}^{AB} = \sum_j \lambda_{ij}^{AB} = 0. \quad (5)$$

These constraints mean that the number of independent parameters for, say,  $\lambda_i^A$  is  $(I - 1)$ , not  $I$ . Nevertheless, only when the variables are dichotomous can the terms be presented as single numbers. Furthermore, if the variables have more than two classes, the interpretation of the terms becomes more awkward. One can, of course, substitute a given value into a model to see how it affects the expected frequency. For the most part, however, the parameters cannot be summarized by a single, easily understood index.<sup>4</sup>

Partly for these reasons, social scientists seem to prefer completely dichotomous data when using these techniques. The resulting models are much easier to calculate, interpret, and display graphically. But as will become apparent, the advantages do not outweigh the disadvantages.

Expected frequencies under a model can be estimated by using the maximum-likelihood methods described by Goodman or other estimation procedures (Grizzle et al. 1969; Theil 1970). The estimates,  $\hat{F}_{ijk}$ , can then be compared to the observed frequencies with either the familiar goodness-of-fit  $\chi^2$  or likelihood-ratio  $\chi^2$  statistics. As with statistical procedures, though, estimation involves some practical problems. On the one hand, use of a very large sample may lead to significant  $\chi^2$  statistics even when the magnitudes of the effects are trivial. On the other hand, the sampling theory rests on asymptotic results because making exact calculations is often very diffi-

<sup>4</sup> For further remarks on the interpretation of these coefficients, see Davis (1974c).

cult (Bishop et al. 1975). The question then arises: How large does the sample have to be for the results to be valid? In particular, several or even most of the estimated expected frequencies in a large cross-classification may be quite small. How do the small values affect the  $\chi^2$  approximations? These kinds of questions are usually answered by resorting to ad hoc rules of thumb, such as the sample size divided by the number of cells should be greater than five. For these reasons, it is tempting to collapse large tables in order to increase the observed frequency in each cell.

Similarly, there may be so many observed zeros in a table that one cannot estimate the parameters. For the parameters of an unsaturated model to be computed, the  $\hat{F}_{ijk}$  must all be greater than zero. Normally, the estimation procedures yield positive estimates, but if zeros appear in marginal tables some estimates may be zero. Then one must either forgo the calculation of the parameters or turn to some procedure for smoothing the data. Perhaps the simplest method of eliminating zeros is to add a constant (e.g., .5 or  $1/T$ , where  $T$  is the total number of cells in the table) to each observed frequency. Goodman recommends adding .5 when computing saturated models. Making this adjustment for unsaturated models—a procedure he does not recommend—can produce large changes in the degrees of freedom and thus affect one's decision regarding the model's adequacy (see Bishop et al. 1975; Smith 1976). Once again, a common way of avoiding and minimizing the problem is to "combine" categories.

To one extent or another, these comments pertain to the consequences of reducing the size or dimensionality of a table. That "collapsing" variables, whether intentionally or unintentionally, can affect a model's parameters has been demonstrated by Bishop et al. (1975).<sup>5</sup>

#### THE EFFECTS OF COLLAPSING VARIABLES

A model always assumes a specific underlying population cross-classification. But we cannot take its appropriateness for granted simply because we happen to have a set of categorical data. Suppose we propose a model for what we believe is an  $I \times J \times K$  table when in fact each variable has many more than  $I$ ,  $J$ , or  $K$  categories. Then our substantive conclusions about the observed table may bear little or no relationship to the true state of affairs. Bishop, Fienberg, and Holland's theorem indicates why.

They define a variable as "collapsible" with respect to other variables if the  $\lambda$  terms pertaining to these variables are the same in the reduced table as in the original array. Consider, for example, an  $I \times J \times K$  table for the variables  $A$ ,  $B$ , and  $C$ . Variable  $C$  is collapsible with respect to  $A$  and  $B$  if  $\lambda_i^A$ ,  $\lambda_j^B$  and  $\lambda_{ij}^{AB}$  are the same in the marginal  $\{AB\}$  table as in the original one. In other words, if ignoring  $C$  by collapsing or combining its categories

<sup>5</sup> See also Bishop (1971) and, for some related comments, Duncan (1974, 1976).

to form a marginal table does not change the remaining parameters, then  $C$  is collapsible.

Collapsibility also arises when only some categories of a variable are combined. Instead of analyzing a  $5 \times 5 \times 5$  table one might combine some of  $C$ 's categories to create a  $5 \times 5 \times 2$  table. As before, if the resulting  $\lambda$ 's pertaining to  $A$  and  $B$  remain unaffected, variable  $C$  is considered collapsible.

How can one determine the collapsibility of a variable? Bishop, Fienberg, and Holland prove a theorem which is restated here as an algorithm: Divide the variables into three groups. The first contains the variables to be collapsed, the second contains variables that are independent of those in the first group, while the third consists of variables that are not independent of those in the first group. (Independence here means that the  $\lambda$  terms linking two variables are zero.) The rule for collapsibility is simply that the first group of variables is collapsible with respect to the  $\lambda$  terms of the second group but *not* with respect to the  $\lambda$ 's involving *only* the variables in the third group.

To illustrate the algorithm, consider a simple three-variable model:

$$G_{ijk} = \theta + \lambda_i^A + \lambda_j^B + \lambda_k^C + \lambda_{ij}^{AB} + \lambda_{ik}^{AC}. \quad (6)$$

Since  $\lambda_{jk}^{BC} = \lambda_{ijk}^{ABC} = 0$ ,  $B$  and  $C$  are considered independent. Thus, we could collapse  $C$  without changing the  $\lambda_{ij}^{AB}$  terms. (The  $\lambda_i^A$  parameters in the marginal table would be different from their counterparts in the full table, however.) Suppose that instead of collapsing  $C$  we combined categories of  $A$  to produce a  $\{BC\}$  marginal table. Because  $A$  is not independent of either  $B$  or  $C$ —that is, the second group is empty—all of the terms,  $\lambda_j^B$ ,  $\lambda_k^C$ , and  $\lambda_{jk}^{BC}$ , would be affected.

All of these remarks pertain to tables of any dimensionality and to compound variables—that is, to situations in which we want to collapse the categories to two or more variables.

Strictly speaking, the theorem applies to changes in sets of effect parameters. Nevertheless, such changes can affect a model's overall significance or acceptability as measured by  $\chi^2$ . In collapsing data, for example, one may effectively "create" an interaction which can no longer be ignored. That is, the interaction would have to be included in the model for the "residual" to be nonsignificant. But this interaction would then be purely an artifact of one's choice of cutting. Collapsing can therefore affect the significance level and hence the decision to accept or reject a model.

Collapsing variables, it is plain, can be justified only under certain circumstances. In a three-variable system, one cannot collapse a variable unless it is independent of at least one of the remaining variables. Models involving four or more variables follow a similar principle. As simple as these ideas seem, they nevertheless have extremely serious consequences. Let us consider these consequences from three perspectives.

### Treating Continuous Data as If They Were Discrete

Bishop et al.'s theorem on collapsibility raises an interesting and important point. Although some phenomena may exist on discrete levels, many variables of concern to social scientists are doubtlessly continuous. Yet time after time they are treated as if they were discrete. Dichotomizing opinions on issues groups people into two categories while the underlying attitude may really consist of a large, perhaps infinite number of possible positions. A dichotomy in this situation represents an extreme form of collapsing, and its seriousness for one's substantive conclusions depends on the variable's relationships to other variables under consideration.

Simulated data provide a heuristic illustration of the problem.<sup>6</sup> A computer program generated several three-variable, linear models of spurious correlation in which  $A$  "caused" both  $B$  and  $C$ . (The  $N$  for each model was 900.) Thus,  $B$  and  $C$  were conditionally independent in the population. Since the data initially consisted of interval scales, each model was tested using the standard criterion that  $r_{BC \cdot A}$  should equal zero except for sampling error. As table 1 indicates, the data satisfied the criterion in every instance.

The scores were then recoded or grouped into ordered categories, simulating ordinal scales one might encounter in a typical attitude survey. The number of categories varied from two to 10. The variables in the first set of data, for example, were all dichotomized to produce a  $2 \times 2 \times 2$  table. After collapsing the data in this manner, an attempt was made to fit the model of conditional independence, namely,

$$G_{ijk} = \lambda + \lambda_i^A + \lambda_j^B + \lambda_k^C + \lambda_{ij}^{AB} + \lambda_{ik}^{AC} \quad (7)$$

The point of view adopted here is that the continuous data from which the tables have been composed represent the true state of affairs. Insofar as is possible, the results of any procedure, whether a log-linear or some other form of analysis, should reflect the true relationships. Categorized variables frequently stem from inability to measure the underlying phenomena more precisely. In other words, lack of knowledge or convenience all too often dictates the level of measurement. Most attitudes, for example, probably do not exist in a discrete pro or con state but rather in gradations from, say, strongly favorable through strongly unfavorable. In many instances, however, one's operational techniques cannot or do not capture the full richness of people's opinions. Hence, the investigator merely pigeonholes them into two or three groups.

If this is in fact the case, a price must be paid. An ideal statistical technique

<sup>6</sup> Using a standard random number generator for the Burroughs B6700 computer, data were generated according to the following equations:  $A_i = e_{Ai}$ ,  $B_i = bA_i + e_{Bi}$ , and  $C_i = cA_i + e_{Ci}$ , where the error terms ( $e$ 's) and the constants were selected to create predetermined levels of correlation between the variables. One advantage of simulated data is that the underlying structure among the variables is known.

TABLE 1

TESTING FOR CONDITIONAL INDEPENDENCE BETWEEN *B* AND *C*\*  
WHEN THE UNDERLYING MODEL IS A SPURIOUS CORRELATION†  
FOR VARIOUS CATEGORIZATIONS OF *A*, *B*, AND *C*  
A. EACH TEST BASED ON SEPARATE SETS OF DATA

CATEGORIES FOR			$r_{BC \cdot A}$	$LRX^2$	df	SIGNIFI- CANCE
<i>C</i>	<i>B</i>	<i>A</i>				
2	2	2.....	.042	23.97	2	.001
2	2	3.....	-.003	11.56	3	.01
2	2	5.....	-.003	6.23	5	N.S.
2	2	10.....	-.056	7.37	10	N.S.
3	3	2.....	-.032	38.55	8	.001
3	3	3.....	.003	28.58	12	.01
3	3	5.....	.005	23.46	20	N.S.
3	3	10.....	.027	51.49	40	N.S.
5	5	2.....	.027	105.73	32	.001
5	5	3.....	-.024	88.14	48	.01
5	5	5.....	-.023	57.49	80	N.S.

## B. EACH TEST BASED ON SAME SET OF DATA

CATEGORIES FOR			$LRX^2$	df	SIGNIFI- CANCE
<i>C</i>	<i>B</i>	<i>A</i>			
2	2	2.....	10.56	2	.05
2	2	3.....	10.98	3	.05
2	2	5.....	10.56	5	N.S.
2	2	10.....	10.85	10	N.S.
3	3	2.....	46.60	8	.001
3	3	3.....	21.07	12	.05
3	3	5.....	13.45	20	N.S.
3	3	10.....	22.49	40	N.S.
5	5	2.....	95.70	32	.001
5	5	3.....	78.74	48	.01
5	5	5.....	77.45	80	N.S.

\* Model:  $\{AB\} \{AC\}$ .

†  $\rho_{AB} = \rho_{AC} = .75$ ,  $\rho_{BC} = .56$ .

would be impervious to measurement errors of this kind. But unfortunately neither log-linear analysis nor, probably, any other method can totally avoid them, and one may never be completely sure his results reflect the true state of affairs. The results in table 1 indicate the problem. (The analysis was carried out first on separate sets of data—table 1A—and then on the same set of data—table 1B. The latter findings show how the same set of data categorized in different ways can lead to different conclusions.)

When each variable has at least five categories, the conditional independence model holds, as we might expect given the underlying structure of the data. Yet when some of the variables, particularly *A*, have fewer classes the

model begins to break down. Without additional information we might infer a direct link between  $B$  and  $C$ , since apparently none of the two-factor interactions can be eliminated.

Table 1 suggests the conditions under which collapsing variables will lead to such errors. If  $A$ , in this case the control variable, has at least five categories the "correct" model, conditional independence, fits, even though the remaining variables have as few as two categories. Hawkes (1973) argues that control variables should not be grouped. Actually, a more general statement is needed. In the three-variable case, collapsing is not justified unless the variable to be collapsed is independent of at least one of the remaining variables. At any rate, it is somewhat heartening to note that if we retain five or more classes in the appropriate variables we may be able to avoid faulty inferences. This finding agrees with related research on ordinal partial correlation (Reynolds 1974).

The essential point, then, is that one should not take the level of measurement for granted. It is always necessary to consider possible distortions introduced by categorizing truly continuous variables and to attempt to maximize the precision of the operational indicators. This dictum applies especially to "exploratory" studies in which the researcher is not sure which variables are interrelated.

It is equally important to think about variables that might have been left out of the analysis. For these omitted variables are in a sense collapsed. In examining a three-dimensional cross-classification among  $A$ ,  $B$ , and  $C$ , one is effectively dealing with a collapsed table, a table which possibly conceals the influence of additional variables. Of course, this point applies to all multivariate procedures, not just the analysis of categorical data.

### Collapsing Variables for Convenience

Even if one contends that his nominal and ordinal scales really represent underlying discrete distributions, the effects of collapsing remain a problem when categories are manipulated for convenience. As mentioned earlier, dichotomizing variables greatly simplifies a log-linear analysis. For example, nearly every article Goodman has published on the subject involves only dichotomous variables. In some cases, he has collapsed variables that originally had more than two categories. His reasons are understandable, because dichotomizing data makes it easier to describe and present the results.

Yet the unwary reader may be left with the impression that the number of categories does not matter. He may feel that Goodman's or similar procedures permit him to manipulate data in any way he pleases without loss of information. Unfortunately, the number of categories will usually affect one's substantive conclusions, as can be seen in the following example.<sup>7</sup>

<sup>7</sup> For related remarks, see Duncan (1976).

\* In comparing log-linear models with dummy variable analysis, Knoke (1975) used data from the National Opinion Research Center's 1973 General Social Survey. His first set of models, the ones reanalyzed here, pertained to four variables: (1) the respondent's attitude toward legalizing abortion, (2) religion, (3) education, and (4) frequency of church attendance. Although Knoke dichotomized each variable, the last three contained more than two levels in the original survey. Specifically, after excluding missing data, religion has three classes, education four, and church attendance five. Thus, we can compare his results using the dichotomies with those obtained from the uncollapsed variables.

From his results, which appear in table 2, Knoke (1975, p. 425) concludes that "... models which include two-variable marginal relationships or only one three-way interaction do not provide satisfactory expected frequencies according to the likelihood ratio [*sic*]  $\chi^2$  criterion. Model *b*, however, which includes all six two-variable combinations as well as two three-way tables involving the dependent variable [opinion on legalized abortion] has an extremely good fit to the data. . . ."

But note that when the variables have not been collapsed much simpler models become acceptable. A good fit is obtained from the model containing six two-factor interactions, and even from a model (0) containing only five such terms. Three-factor interactions are actually not needed to account for the data.

One can see how Bishop et al.'s theorem might account for these results. Suppose that model (0) was in fact the true model for the  $2 \times 3 \times 4 \times 5$  population table. Then collapsing, say, variable 4 (church attendance), which is not independent of any of the other variables, would affect the remaining interactions. The true model is of course unknown, but the lesson

TABLE 2  
RETEST OF KNOKE (1975) DATA

MODEL	FITTED MARGINALS	KNOKE'S RESULTS			REANALYSIS		
		<i>LRX</i> <sup>2</sup>	df	Signifi- cance	<i>LEX</i> <sup>2</sup>	df*	Signifi- cance
0.....	{12} {13} {14} {24} {34}	...	...	...	94.57	80	N.S.
1.....	{12} {13} {14} {23} {24} {34}	17.39	5	.005	64.00	65	N.S.
2.....	{123} {14} {24} {34}	7.84	4	.1	53.53	55	N.S.
3.....	{134} {12} {23} {24}	9.60	4	.05	55.44	53	N.S.
4.....	{124} {13} {23}	17.21	4	.005	96.34	69	.05
5.....	{123} {134}	8.40	4	.1	90.53	52	.01
6.....	{123} {134} {24}	1.19	3	N.S.	45.41	44	N.S.
7.....	{123} {134} {124}	1.09	2	N.S.	41.48	36	N.S.

NOTE.—1 = Legalization of abortion, 2 = religion, 3 = education, 4 = church attendance.

\* Due to the presence of cells with zero estimates, the degrees of freedom for each model except the first have been adjusted according to the procedures outlined in Bishop, Fienberg, and Holland (1975).

is clear. By simply combining categories one may create artificial interactions which will give a misleading picture of the underlying relationships.

The point is not to fault Knoke who was, after all, not trying to develop a model for attitudes toward legalized abortions, but simply comparing two techniques.<sup>8</sup> These comments merely demonstrate that one's conclusions depend to a certain extent on how one categorizes the data and that no matter how sophisticated log-linear analysis seems it does not obviate the problem.

### The Analysis of Recursive Systems

Goodman (1973a, 1973b) introduced a modification of log-linear analysis which, he argues, is analogous to the usual analysis of recursive models. This development is especially welcome to those investigators who wish to perform causal analyses on categorical data. As in the previous instances, though, the method has to be applied carefully since it, too, involves collapsing variables.

Consider, as an example, a four-way table consisting of variables  $A$ ,  $B$ ,  $C$ , and  $D$ . Suppose variables  $A$  and  $B$  are causally prior to  $C$  and all three are prior to  $D$ . Under this assumption, reciprocal causation and feedback loops have been ruled out.

According to Goodman's method one first develops a model,  $H_1$ , for the  $\{AB\}$  marginal table. The adequacy of this model can be measured with the likelihood ratio  $\chi^2$  statistic.

Next consider a model,  $H_2$ , for the three-way table  $\{ABC\}$  which includes  $\{AB\}$  in the set of fitted marginals. Again, this model can be tested by an appropriate likelihood ratio  $\chi^2$ . Finally, consider a model,  $H_3$ , for the four-way  $I \times J \times K \times L$  table,  $\{ABCD\}$ , which contains  $\{ABC\}$  in the set of fitted marginals.

Now consider the hypothesis that  $H_1$ ,  $H_2$ , and  $H_3$  are all true. Goodman shows that the test for this combined model, call it  $H^*$ , can be calculated in either of two ways. First, the expected frequencies for  $H^*$  can be found from

$$\hat{F}_{ijkl}^* = \hat{F}_{ij} \hat{F}_{ijk} \hat{F}_{ijkl} / f_{ij} f_{ijk}, \quad (8)$$

where  $\hat{F}_{ij}$ ,  $\hat{F}_{ijk}$ , and  $\hat{F}_{ijkl}$  are the estimated expected frequencies under  $H_1$ ,  $H_2$ , and  $H_3$ , respectively, and  $f_{ij}$  and  $f_{ijk}$  are the observed frequencies in the

<sup>8</sup> Note, however, that the tendency to dichotomize data is widespread throughout the social sciences, even when more categories are available. In another article, for example, Knoke (1974) dichotomizes data drawn from the Survey Research Center (University of Michigan) presidential election surveys. But these variables have more than two categories in their original form. A reanalysis of his models (not presented here for the sake of brevity) shows that with the uncollapsed variables one generally gets a simpler picture of the data.



two-way and three-way tables. The  $\hat{\pi}_{ijkl}^*$  can then be substituted into the formula for the likelihood ratio statistic.

Alternatively, the  $\chi^2$  test for  $H^*$  can be partitioned as

$$LRX^2(H^*) = LRX^2(H_1) + LRX^2(H_2) + LRX^2(H_3), \quad (9)$$

with the degrees of freedom for  $H^*$  equaling the sum of the degrees of freedom for the separate tests of  $H_1$ ,  $H_2$ , and  $H_3$ . Goodman also suggests diagrams for  $H^*$  which are akin to usual path diagrams.

Although Goodman's approach seems sound enough, it does require one to collapse variables in order to form the appropriate marginal tables. His justification for doing so is that "[s]ince there are no arrows pointing to  $A$  or  $B$  from  $C$  or  $D$  . . . the appropriate estimate of  $\beta^{AB}$  was obtained by an analysis of the two-way marginal table  $\{AB\}$  . . . , as would be the case in the usual analysis (for quantitative variables) . . ." (Goodman 1973a, p. 1153).

The analogy seems weak and misleading, however. Causal analysis often involves the estimation of total correlations, but these are not computed by collapsing the remaining variables. Instead, they are calculated from the full set of scores for each variable.

That collapsing data can lead to ambiguities is shown by another example. Data consisting of dichotomous variables were simulated to fit the four-variable causal model shown in figure 1 (see table 3).<sup>9</sup> The  $e$ 's represent random disturbances and each relationship is linear. Note that only the  $BC$  arrow is missing, meaning  $B$  and  $C$  are conditionally independent given  $A$ .

A satisfactory model for these data is  $H: \{AB\}\{AC\}\{AD\}\{BD\}\{CD\}$  for which  $LRX^2 = 1.02$ , with six degrees of freedom. In view of these considerations, the inclusion of terms corresponding to  $\{BC\}$  seems unwarranted.

Yet efforts to test the model "recursively" according to Goodman's scheme lead to an additional term representing a direct link between  $B$  and  $C$ . Table 4 provides the test. Clearly  $H^*$ , the composite model, is significant. Upon partitioning  $H^*$  one immediately sees that the source of the trouble

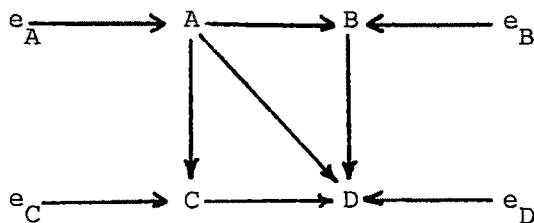


FIG. 1

<sup>9</sup> The simulation was carried out in the same general way as the one described in n. 6 above.

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TABLE 3  
DATA USED IN TESTING MODEL IN FIGURE 1

A	B	C	D	
			+	-
+	+	+	242	20
+	+	-	68	21
+	-	+	54	55
+	-	-	15	43
-	+	+	34	12
-	+	-	55	55
-	-	+	17	58
-	-	-	28	254

TABLE 4  
TEST OF THE RECURSIVE MODEL IN FIGURE 1

Source	LRX <sup>2</sup>	df
H <sub>1</sub> {ABC}{AD}{BD}{CD} .....	0.83	4
H <sub>2</sub> {AB}{AC} .....	19.22	2
H <sub>3</sub> {AB} .....	0.0	0
H* composite model .....	20.05	6

NOTE.—H<sub>1</sub> pertains to the four-way table {ABCD}; H<sub>2</sub> to the three-way table {ABC}; H<sub>3</sub> to the two-way table {AB}.

lies in H<sub>2</sub>, the model asserting conditional independence between B and C in the three-way table: LRX<sup>2</sup> = 19.22 with two degrees of freedom. To obtain a satisfactory fit for H\* one must modify H<sub>2</sub> to include a parameter linking B and C.

Certainly we know from Bishop et al.'s theorem that such a term might be expected to appear. Analysis of the {ABC} marginal table—that is, collapsing D to compute  $\hat{P}_{ijk}$ —almost guarantees that we will find such a link. Obviously aware of the situation, Goodman nevertheless recommends this strategy for analyzing recursive systems.

Some of Goodman's own examples exhibit the same properties. For instance, Goodman (1973a) analyzes a four-way table dealing with the attitudes of 3,398 schoolboys. He presents numerous path diagrams based on the model H': {AB}{AC}{BC}{BD}{CD} for which LRX<sup>2</sup> = 4.06, with six degrees of freedom. But another, simpler model—H'': {AC}{BC}{BD}{CD}—also fits the observations: LRX<sup>2</sup> = 8.78, with seven degrees of freedom. The difference between the models is of course {AB}, which though statistically significant seems unnecessary for a full understanding of the data. Any attempt to eliminate it from a recursive model will fail, however, because the term always appears in the collapsed {AB} table.

Thus, collapsing a variable may require one to fit parameters that would

otherwise be unnecessary. Since the true causal priorities among variables are unknown, the investigator has a problem: he finds linkages in the reduced table that are not present in the full array. An ideal technique would allow one to specify the causal assumptions and then test the model, as given without also having to add parameters. For example, the usual causal analysis of the model in figure 1 (applied to quantitative data) would presumably allow one to detect the conditional independence of  $B$  and  $C$ .

#### SUMMARY

With this one exception, none of these remarks, it should be reemphasized, is intended to disparage the techniques Goodman describes. After all, those techniques were designed for discrete data and cannot be expected to work if the data are not discrete.

But therein lies the rub. Many if not most of the nominal and ordinal scales found in the social sciences probably only approximate what are really continuous variables or at least variables having many more than two or three classes. If this is the case, we may be asking too much. Even though the methods seem ideally suited for the analysis of cross-classifications, they may actually solve relatively few of our most nagging problems.

Incidentally, other forms of categorical data analysis are not much different in this regard. Grizzle et al. (1969) and Theil (1970), for example, use weight least squares to obtain estimates for the types of models Goodman considers. Yet since both approaches frequently lead to the same conclusions—and in many instances to the same numerical results—they share the same interpretative shortcomings. Likewise, efforts by Hawkes (1971) and Smith (1972) to develop and justify “product-moment” correlation and regression analogues for ordinal scales, even those involving numerous ties, have been criticized on precisely the same grounds: the methods, however well defined, cannot always detect the true underlying structure from which the observations are taken (see Kim 1975; Reynolds 1973, 1974). Nor does Quade’s (1974) index of matched correlation, of which Davis’s (1967) partial gamma is a special case, fare much better.

In conclusion, a researcher has to be pessimistic about using categorical data—variables that have in effect been collapsed—to detect causal structures. Furthermore, even with truly discrete data he should not let the sophistication of these methods beguile him into thinking that his measurement problems are over. Still, knowing the conditions and limits of their valid application, one can at least pursue future research with increased understanding.

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## REFERENCES

- Andrews, F. M., and Robert C. Messenger. 1973. *Multivariate Nominal Scale Analysis*. Ann Arbor, Mich.: Institute for Social Research.
- Andrews, F. M., James N. Morgan, and John Sonquist. 1967. *Multiple Classification Analysis*. Ann Arbor, Mich.: Institute for Social Research.
- Bishop, Yvonne M. M. 1971. "Effects of Collapsing Multidimensional Contingency Tables." *Biometrics* 27 (September): 545-62.
- Bishop, Yvonne M. M., Stephen E. Fienberg, and Paul W. Holland. 1975. *Discrete Multivariate Analysis: Theory and Practice*. Cambridge, Mass.: M.I.T. Press.
- Coleman, James S. 1964. *Introduction to Mathematical Sociology*. New York: Free Press.
- Davis, James A. 1967. "A Partial Coefficient for Goodman and Kruskal's Gamma." *Journal of the American Statistical Association* 62 (March): 189-93.
- . 1974a. "Hierarchical Models for Significance Tests in Multivariate Contingency Tables." Pp. 189-231 in *Sociological Methodology 1973-1974*, edited by Herbert L. Costner. San Francisco: Jossey-Bass.
- . 1974b. "The Log Linear Analysis of Survey Replications." Pp. 75-104 in *Social Indicator Models*, edited by Kenneth C. Land and Seymour Spilerman. New York: Russell Sage.
- . 1974c. "A Survey Metric Model of Social Change." Pt. 1 (February). Lithographed. Chicago: National Opinion Research Center.
- . 1975. "Analyzing Contingency Tables with Linear Flow Graphs: D Systems." Pp. 111-45 in *Sociological Methodology 1976*, edited by David R. Heise. San Francisco: Jossey-Bass.
- Duncan, Otis Dudley. 1974. "Measuring Social Change via Replication of Surveys." Pp. 105-27 in *Social Indicator Models*, edited by Kenneth C. Land and Seymour Spilerman. New York: Russell Sage.
- . 1976. "Partitioning Polytomous Variables in Multiway Contingency Tables." *Social Science Research* 4 (December): 167-82.
- Fienberg, Stephen E. 1970. "The Analysis of Multidimensional Contingency Tables." *Ecology* 51 (Spring): 419-33.
- Giles, Michael W., Douglas S. Gatlin, and Everett F. Cataldo. 1976. "Racial and Class Prejudice: Their Relative Effects on Protest against School Desegregation." *American Sociological Review* 41 (April): 280-88.
- Goodman, Leo A. 1970. "The Multivariate Analysis of Qualitative Data." *Journal of the American Statistical Association* 65 (March): 226-56.
- . 1971. "The Analysis of Multidimensional Contingency Tables: Stepwise Procedures and Direct Estimation Methods for Building Models for Multiple Classifications." *Technometrics* 13 (February): 33-61.
- . 1972a. "A General Model for the Analysis of Surveys." *American Journal of Sociology* 77 (May): 1035-86.
- . 1972b. "A Modified Multiple Regression Approach to the Analysis of Dichotomous Variables." *American Sociological Review* 37 (February): 28-46.
- . 1973a. "The Analysis of Multidimensional Contingency Tables When Some Variables Are Posterior to Others: A Modified Path Analysis Approach." *Biometrika* 59 (1): 579-96.
- . 1973b. "Causal Analysis of Data from Panel Studies and Other Kinds of Surveys." *American Journal of Sociology* 78 (March): 1135-91.
- . 1974a. "The Analysis of Systems of Qualitative Variables When Some of the Variables Are Unobservable. Part I—a Modified Latent Structure Approach." *American Journal of Sociology* 79 (March): 1179-1259.
- . 1974b. "Exploratory Latent Structure Analysis Using Both Identifiable and Unidentifiable Models." *Biometrika* 61 (2): 215-31.
- . 1975. "The Relationship between Modified and Usual Multiple-Regression Approaches to the Analysis of Dichotomous Variables." Pp. 83-110 in *Sociological Methodology 1976*, edited by David R. Heise. San Francisco: Jossey-Bass.

- Grizzle, James E., C. Frank Starmer, and Gary G. Koch. 1969. "Analysis of Categorical Data by Linear Models." *Biometrics* 25 (September): 489-504.
- Grizzle, James E., and O. Dale Williams. 1972. "Log Linear Models and Tests of Independence for Contingency Tables." *Biometrics* 28 (March): 137-56.
- Guest, Avery M. 1974. "Class Consciousness and American Political Attitudes." *Social Forces* 52 (June): 496-510.
- Hawkes, Roland K. 1971. "The Multivariate Analysis of Ordinal Measures." *American Journal of Sociology* 76 (March): 908-26.
- . 1973. "Reply to Reynolds." *American Journal of Sociology* 78 (March): 1516-21.
- . 1975. "Effects of Grouping on Measures of Ordinal Association." Pp. 176-94 in *Sociological Methodology 1976*, edited by David R. Heise. San Francisco: Jossey-Bass.
- Hyman, Herbert H. 1955. *Survey Design and Analysis*. Glencoe, Ill.: Free Press.
- Johnson, William D., and Gary G. Koch. 1971. "A Note on the Weighted Least Squares Analysis of the Ries-Smith Contingency Table Data." *Technometrics* 13 (May): 438-47.
- Kim, Jae-On. 1975. "Multivariate Analysis of Ordinal Variables." *American Journal of Sociology* 81 (September): 261-98.
- Knoke, David. 1974. "Religious Involvement and Political Behavior: A Log-linear Analysis of White Americans, 1952-1968." *Sociological Quarterly* 15 (Winter): 51-65.
- . 1975. "A Comparison of Log-linear and Regression Models for Systems of Dichotomous Variables." *Sociological Methods and Research* 3 (May): 416-34.
- Koch, Gary G., Peter B. Imrey, and Donald W. Reinfurt. 1972. "Linear Model Analysis of Categorical Data with Incomplete Response Vectors." *Biometrics* 28 (September): 663-92.
- Koch, Gary G., and Donald W. Reinfurt. 1971. "The Analysis of Categorical Data from Mixed Models." *Biometrics* 27 (March): 157-73.
- Kritzer, Herbert. 1975. "Sources of Role Orientations: Reality or Chance?" *Journal of Politics* 37 (November): 1095-99.
- Ku, H. H., and Solomon Kullback. 1968. "Interaction in Multidimensional Contingency Tables: An Information Theoretic Approach." *Journal of Research of the National Bureau of Standards* 72B (September): 159-99.
- Ku, H. H., R. N. Varner, and S. Kullback. 1971. "On the Analysis of Multidimensional Contingency Tables." *Journal of the American Statistical Association* 66 (March): 55-64.
- Kullback, Solomon. 1973. "Estimating and Testing Linear Hypotheses on Parameters in the Log-linear Model." *Biometrische Zeitschrift* 15: 371-88.
- . 1974. *Information in Contingency Tables—Final Technical Report*. Washington, D.C.: George Washington University, Department of Statistics.
- Labovitz, Sanford. 1970. "The Assignment of Numbers of Rank Order Categories." *American Sociological Review* 35 (June): 515-24.
- Lehnen, Robert G. 1972. "Public Views of State Governors." Pp. 258-69 in *American Governor in Behavioral Perspective*, edited by Thad Beyle and J. O. Williams. New York: Harper & Row.
- Lehnen, Robert G., and Gary G. Koch. 1974a. "Analyzing Panel Data with Uncontrolled Attrition." *Public Opinion Quarterly* 38 (Spring): 40-56.
- . 1974b. "A General Linear Approach to the Analysis of Non-metric Data: Applications for Political Science." *American Journal of Political Science* 18 (May): 283-313.
- Lindley, Dennis V. 1964. "The Bayesian Analysis of Contingency Tables." *Annals of Mathematical Statistics* 35 (December): 1622-43.
- Lindsey, J. K. 1973. *Inferences from Sociological Survey Data—a Unified Approach*. San Francisco: Jossey-Bass.
- Miller, J., and M. Erickson. 1974. "On Dummy Variable Regression Analysis: A Description and Illustration of the Method." *Sociological Methods and Research* 2 (May): 409-30.
- Quade, Dana. 1974. "Nonparametric Partial Correlation." Pp. 369-98 in *Measurement in the Social Sciences*, edited by Hubert M. Blalock, Jr. Chicago: Aldine.
- Reynolds, H. T. 1973. "On 'The Multivariate Analysis of Ordinal Measures.'" *American Journal of Sociology* 78 (May): 1513-16.
- . 1974. "Ordinal Partial Correlation and Causal Inferences." Pp. 399-423 in *Measurement in the Social Sciences*, edited by Hubert M. Blalock, Jr. Chicago: Aldine.

## Causal Analysis of Surveys with Log-linear Models

- Rosenberg, Morris. 1968. *The Logic of Survey Analysis*. New York: Basic.
- Scheuren, Fredrick J. 1973. "Ransacking CPS Tabulations: Applications of the Log-linear Model to Poverty Statistics." *Annals of Economic and Social Measurement* 2 (March): 159-82.
- Smith, Kent W. 1976. "Marginal Standardization and Table Shrinking." *Social Forces* 54 (March): 669-93.
- Smith, Robert B. 1972. "Neighborhood Context and College Plans: An Ordinal Path Analysis." *Social Forces* 51 (December): 199-217.
- Suits, Daniel. 1957. "The Use of Dummy Variables in Regression Equations." *Journal of the American Statistical Association* 52 (December): 548-51.
- Theil, Henri. 1970. "On the Estimation of Relationships Involving Qualitative Variables." *American Journal of Sociology* 76 (July): 103-54.

# Testing for Interaction in Multiple Regression<sup>1</sup>

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Contrary to a recent claim, the inclusion of a product term in a multiple regression is a legitimate way to test for interaction. The unstandardized coefficient and the *t*-test for the product term are unaffected by the addition of arbitrary constants to the variables in the model. Certain other statistics are affected by this change, however, indicating that some hypotheses relating to interaction are not meaningfully testable unless variables are measured on ratio scales.

Sociological theories often imply that two or more variables interact in their effects upon some dependent variable (Blalock 1965). The variables  $x_1$  and  $x_2$  are said to interact in the determination of  $y$  if the effect of  $x_1$  on  $y$  depends on the level of  $x_2$  (which implies, symmetrically, that the effect of  $x_2$  on  $y$  depends on the level of  $x_1$ ). If all three variables are measured on numerical scales, it is common practice to test for the presence of interaction by including the product of  $x_1$  and  $x_2$  as an additional variable in a multiple regression. That is, one runs the model

$$\hat{y} = b_0 + b_1x_1 + b_2x_2 + b_3x_1x_2. \quad (1)$$

If  $b_3$  differs significantly from zero, the interaction is said to be significant.

Althauser (1971) has suggested that this method is invalid. He claims to show that the standardized coefficients corresponding to the  $b$ 's in the above equation are strongly influenced by the correlation between either  $x_1$  or  $x_2$  and the product term  $x_1x_2$ . These correlations, in turn, depend on the sample means of  $x_1$  and  $x_2$ . He concludes that the *F*-test for the coefficient  $b_3$  is also affected by the sample means, a rather undesirable result since many sociological scales have arbitrary zero points and hence arbitrary means. This would seem to imply an arbitrary value for the test statistic as well.

I will argue here that, on the contrary, the inclusion of product terms in a multiple regression is a quite legitimate method for testing and estimating interaction effects.<sup>2</sup> While Althauser is correct in stating that the standard-

<sup>1</sup> After writing the initial draft of this paper, I learned that Arthur S. Goldberger had anticipated the central result in a personal communication with Robert Althauser. His formulation of the issue has helped to clarify my own. I am also grateful to George Bohrnstedt, Lowell Hargens, James House, and Scott Long for helpful suggestions.

<sup>2</sup> Because Althauser's approach is fundamentally different from the one taken here, I will not examine his arguments in detail. I only wish to note, first, that his statement about the *F*-ratio is not supported by a formal derivation. Second, his argument is marred by an error which occurs early in the paper and is carried through the remaining derivations.

ized coefficient for the product term is affected by changes in the means, the  $F$ - and  $t$ -ratios for the product term are not affected. Moreover, the unstandardized coefficient for the product term is also unaffected. Nevertheless, there are problems in the formulation and interpretation of tests for interaction when one or more of the variables are measured on interval scales. These difficulties will be explored in some detail.

#### CHANGING THE ZERO POINT OF AN INTERVAL SCALE

It is well known that the usual regression model assumes that the variables are measured at least by means of interval scales, a matter of some concern to those who have only ordinal data. But even those sociological variables which approximate an interval scale often have arbitrary zero points. Most attitude and prestige scales, for example, are of this type. Variables like income or population size which do have a theoretically fixed zero point are referred to as ratio scales (Hays 1963).

The distinction between interval and ratio scales is ordinarily of little importance in regression analysis. Most researchers are aware of the fact that adding a constant to a variable (which amounts to changing the zero point) changes the intercept in the equation but leaves the slope estimate unchanged. This creates little difficulty because the intercept is rarely an object for interpretation or testing.

Something very similar happens when a product term containing an interval variable is included in a regression equation. Consider equation (1), and suppose that  $x_1$  is measured on an interval scale.<sup>3</sup> This means that the zero point of  $x_1$  can be altered by adding or subtracting an arbitrary constant without any loss of information. Define  $z_1 = x_1 + c$  where  $c$  is an arbitrary constant. Substituting into (1) yields

$$\hat{y} = b_0 + b_1(z_1 - c) + b_2x_2 + b_3(z_1 - c)x_2. \quad (2)$$

Multiplying out and combining terms gives

$$\hat{y} = (b_0 - b_1c) + b_1z_1 + (b_2 - b_3c)x_2 + b_3z_1x_2, \quad (3)$$

which can be rewritten as

$$\hat{y} = b_0^* + b_1z_1 + b_2^*x_2 + b_3z_1x_2 \quad (4)$$

where  $b_0^* = b_0 - b_1c$  and  $b_2^* = b_2 - b_3c$ .

Equation (4) shows what would happen if  $y$  were regressed on  $z_1$ ,  $x_2$ , and  $z_1x_2$ . In other words, it shows the consequences of arbitrarily changing the

Specifically, his equation (A4) purports to be a general expression for the variance of  $x_1x_2$ , but in fact it only holds when  $x_1$  and  $x_2$  are independent. Yet those same variables are assumed to be correlated in later sections of the paper.

<sup>3</sup> The results which follow are true for both the population and the sample. To simplify the discussion, they are formulated in terms of the sample statistics alone.



zero point of  $x_1$ , a permissible transformation if  $x_1$  is measured at the interval level. We find that two coefficients are changed, the intercept and slope for  $x_2$  alone. But the slopes for  $x_1$  and the product term  $x_1x_2$  are unaltered by this transformation. In a similar fashion, it is easy to show that if the regression is rerun with arbitrary constants added to both  $x_1$  and  $x_2$ , all the coefficients *except*  $b_3$  are changed.

This demonstrates that the coefficient for the product term is unaltered by changes in the means of the variables resulting from the addition of a constant to all scores. The invariance also extends to tests of hypotheses about  $b_3$ . For example, as Althausen (1971) points out, the hypothesis that  $b_3 = 0$  in the population can be tested by forming the  $F$ -ratio

$$F = \frac{(R_B^2 - R_A^2)(N - 4)}{1 - R_B^2} \quad (5)$$

where  $R_B^2$  is the coefficient of determination for (1),  $R_A^2$  is for a model that excludes the product term, and  $N$  is the number of observations. It is well known that  $R_A^2$  is unaffected by linear transformations of the independent variables in the regression. It is easily seen that the same invariance must also hold for  $R_B^2$ . Since only the right side of (4) is altered, the predicted value of  $y$  remains the same. This implies that  $R_B^2$ , which equals

$$\sum_{i=1}^N (y_i - \hat{y}_i)^2 / \sum_{i=1}^N (y_i - \bar{y})^2,$$

is unaltered by the transformation, and thus (5) is unchanged as well. Note that since the  $t$ -ratio for the hypothesis that  $b_3 = 0$  is just the square root of (5), it also is unchanged.

The  $F$ -ratio for the coefficient of  $x_2$ , however, is changed by the addition of a constant to  $x_1$  since  $b_2 = 0$  and  $b_2^* = 0$  are quite different hypotheses. In particular, if  $b_2 = 0$  then  $b_2^*$  cannot equal zero unless there is no interaction (i.e.,  $b_3 = 0$ ) or unless  $c = 0$  (a trivial case). Note also that by picking an appropriate value for  $c$ , one can make  $b_2^*$  take on any desired value. For instance, if  $c = b_2/b_3$  then  $b_2^* = 0$ .

#### STANDARDIZED COEFFICIENTS

The preceding results for the unstandardized coefficients do not apply to the standardized (path) coefficients, which show a different pattern of change and invariance. The standardized coefficients for the model in (1) are given by

$$\begin{aligned} p_{y1} &= b_1s_{x1}/s_y \\ p_{y2} &= b_2s_{x2}/s_y \\ p_{y3} &= b_3s_{(x_1x_2)}/s_y \end{aligned} \quad (6)$$

where the  $s$ 's are standard deviations of the subscripted variables. In particular,  $s_{(x_1x_2)}$  is the standard deviation of the product term. I have already shown that  $b_1$  and  $b_3$  are unchanged by the addition of an arbitrary constant to  $x_1$ , and obviously  $s_y$ ,  $s_{x_2}$ , and  $s_{x_1}$  are also unchanged by that transformation. Therefore  $p_{y1}$  is not affected. The transformation does alter  $b_2$ , however, so  $p_{y2}$  changes with the addition of a constant to  $x_1$ . The coefficient  $p_{y3}$  depends on  $s_{(x_1x_2)}$ , which turns out to be affected by changes in the mean of  $x_1$  or  $x_2$ . In the special case in which  $x_1$  and  $x_2$  are independent,

$$\sigma^2_{x_1x_2} = \text{var}(x_1) \text{var}(x_2) + E^2(x_1) \text{var}(x_2) + E^2(x_2) \text{var}(x_1). \quad (7)$$

This result (Goodman 1960) is for the population but it has an analogue for a sample. It shows that the variance of the product increases as the means of  $x_1$  and  $x_2$  depart from zero. In the general case in which  $x_1$  and  $x_2$  are not independent, the variance of the product is a somewhat more complicated function of the means (Bohrnstedt and Goldberger 1969). We find, therefore, that the only standardized coefficient not altered by a change in the zero point of one of the variables is the coefficient for that variable entered singly. And if the zero point changes for all the variables in the product term, then all the standardized coefficients will change.

#### AN EMPIRICAL EXAMPLE

The reader may easily demonstrate these results to himself by changing the coding in sample regressions with product terms. I present here a simple example using real data from a survey of parapsychologists.<sup>4</sup> For the 119 cases, there were measurements on three variables:  $x_1$ ,  $x_2$ , and  $y$ . Panel A of table 1 shows results from an ordinary least-squares regression of  $y$  on  $x_1$  and  $x_2$ . The two independent variables had positive effects on  $y$  that were both significant beyond the .01 level (one-tailed test). Panel B shows the regression of  $y$  on  $x_1$  and  $x_2$  with the addition of the product term  $x_1x_2$ . The coefficient for the product is significant at the .05 level (one-tailed test).

Panel C shows the results of a similar regression with  $x_1$  recoded such that  $x_1^* = x_1 + 400$ . As predicted, the unstandardized coefficient for the product term and its associated  $t$ -ratio are unchanged. Also unchanged are the unstandardized coefficient, standardized coefficient, and  $t$ -ratio for  $x_1^*$ . But the intercept and the coefficient for  $x_2$  both increase by two orders of magnitude. The  $t$ -ratio for  $x_2$  doubles in magnitude, while the standardized coefficients for  $x_2$  and  $x_1^*x_2$  reach the enormous values of  $-34$  and  $34$ , re-

<sup>4</sup> The population consisted of 119 members of the Parapsychological Association. The three variables are  $x_1$ , a 12-point scale measuring interest in parapsychology;  $x_2$ , the number of professional associations in which they reported membership;  $y$ , the number of times they had experienced discrimination because of their interest in parapsychology. Strictly speaking, it is not permissible to add a constant to  $x_2$  since it is measured as a ratio scale. This was done in panel D of table 1 for the sake of example.

TABLE 1  
REGRESSIONS OF  $y$  ON  $x_1$ ,  $x_2$ , AND  $x_1x_2$ , SHOWING EFFECTS  
OF ADDING CONSTANTS TO  $x_1$  AND  $x_2$

	$b$	Standardized Coefficient	$t$	$R^2$
A				
Intercept.....	- 2.19	...	-2.34	.173
$x_1$ .....	0.395	0.27	3.18	...
$x_2$ .....	0.314	0.29	2.48	...
B				
Intercept.....	- 0.456	...	-0.35	.199
$x_1$ .....	0.152	0.10	0.87	...
$x_2$ .....	- 0.336	- 0.31	-0.96	...
$x_1x_2$ .....	0.0887	0.66	1.91	...
C				
Intercept.....	-61.4	...	-0.86	.199
$x_1^*$ .....	0.152	0.10	0.87	...
$x_2^*$ .....	-35.8	-33.56	-1.90	...
$x_1^*x_2^*$ .....	0.0887	33.87	1.91	...
D				
Intercept.....	0.121	...	0.13	.199
$x_1^{**}$ .....	0.000	0.00	0.00	...
$x_2$ .....	0.000	0.00	0.00	...
$x_1^{**}x_2^*$ .....	0.0887	0.45	1.91	...

NOTE.— $x_1^* = x_1 + 400$ ,  $x_1^{**} = x_1 - 3.788$ ,  $x_2^* = x_2 + 1.714$ .

spectively. Panel D shows results with both independent variables recoded as follows:  $x_1^{**} = x_1 - 3.788$  and  $x_2^* = x_2 + 1.714$ . These values were derived from the results in panel B in order to produce the results shown here: unstandardized coefficients, standardized coefficients, and  $t$ -ratios for  $x_1^{**}$  and  $x_2^*$  all go to zero. But the unstandardized coefficient and  $t$ -ratio for the product term remain unchanged. Note also that  $R^2$  is the same for all three models with product terms.

## IMPLICATIONS

What do these results mean for the practicing researcher? First, although there may be better methods in some cases, the use of product terms to test for interaction is a legitimate method. The unstandardized coefficient and the  $t$ -test are not affected by changes in the means or zero points of the variables. Second, when one or more of the variables in the product term are measured on interval scales, it is useless to attempt to substantively interpret or test hypotheses about the coefficients for the other variables entered singly. If one of the variables has an arbitrary zero point, then those

## Interaction in Multiple Regression

coefficients are also arbitrary. From a purely statistical point of view, one can validly test whether any of the coefficients differ from zero. The point is that since the magnitude of the coefficients depends on an arbitrary constant, there can be no theoretical basis for hypothesizing that the coefficients are zero. A hypothesis about the values of those coefficients is equivalent to a hypothesis fixing the zero point of the interval scale. In Fararo's (1973) terminology, such hypotheses are not "empirically meaningful statements." Third, for similar reasons it is an exercise in futility to attempt to determine the relative importance of main effects and interaction by examining the standardized coefficients. Even when variables are measured on ratio scales, this will probably not be an informative comparison. Perhaps the best measure of the importance of the interaction is simply the increment to  $R^2$  with the inclusion of the product term. Finally, it must be emphasized that the transformations that have been considered do not alter the models in any fundamental respect—they merely rearrange the information that they contain. Nothing that is theoretically meaningful is lost by this transformation, but it is important to keep in mind which statistics convey theoretically useful information and which do not.

### HIGHER-ORDER INTERACTIONS

All these results can be generalized in a straightforward manner to regression equations containing product terms with three or more factors. Consider the model

$$\hat{y} = b_0 + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_1x_2 + b_5x_1x_3 + b_6x_2x_3 + b_7x_1x_2x_3. \quad (8)$$

Transforming this equation to one in  $z_1 = x_1 + c$  gives

$$\hat{y} = b_0^* + b_1z_1 + b_2^*x_2 + b_3^*x_3 + b_4z_1x_2 + b_5z_1x_3 + b_6^*x_2x_3 + b_7z_1x_2x_3 \quad (9)$$

where an asterisk indicates that the coefficient has changed with the transformation. For equations with all possible interactions and main effects, the general rule is this: Coefficients for all terms involving the transformed (interval) variable are unaltered; coefficients for all other terms are changed (arbitrary). More complicated rules are needed when some of the possible terms are excluded. For example, if  $b_7$  in (8) is set equal to zero, the transformation of  $x_1$  will affect only  $b_0$ ,  $b_2$ , and  $b_3$ , leaving  $b_1$ ,  $b_4$ ,  $b_5$ , and  $b_6$  unchanged.

### HIERARCHICAL TESTING

It is a common rule of thumb that testing for interaction in multiple regression should only be done hierarchically. That is, one should test for higher-

order interactions only when all lower-order interactions and main effects are included in the equation. If a rationale for this rule is given at all, it is usually that additive relationships somehow have priority over multiplicative relationships. When all variables are measured at the ratio level and there are strong theoretical reasons for excluding lower-order terms, this rule seems overly stringent. Indeed, the exclusion of lower-order terms in such cases can increase precision of estimation and the power of hypothesis tests (Wonnacott and Wonnacott 1970, p. 312). But when one or more variables in a product term are measured at the interval level, the hierarchical principle becomes essential.

Suppose, for example, that  $x_1$ ,  $x_2$ , and  $y$  are measured at the ratio level and there exists a theory which states that the appropriate model is

$$\hat{y} = bx_1x_2. \quad (10)$$

In this case it would be quite reasonable to run the regression corresponding to (10) in order to estimate  $b$ . But suppose that  $x_1$  and  $x_2$  cannot be measured directly and one has to settle for the interval measures  $z_1 = x_1 + c$  and  $z_2 = x_2 + d$  where  $c$  and  $d$  are unknown constants. Substituting these measures into (10) yields

$$\begin{aligned} \hat{y} &= b(z_1 - c)(z_2 - d) \\ &= bcd - bdz_1 - bcz_2 + bz_1z_2 \\ &= a_0 + a_1z_1 + a_2z_2 + a_3z_1z_2 \end{aligned} \quad (11)$$

where the  $a_i$  coefficients are defined by the line preceding them. This result indicates that, although the original hypothesis in (10) sets the lower-order terms equal to zero, that fact does not imply that the lower-order terms can be excluded when running the regression on interval-level variables. It should be clear that  $a_0$ ,  $a_1$ , and  $a_2$  can be zero or nonzero depending on the unknown values of  $c$  and  $d$ . Hence, there can be no theoretical justification for setting these coefficients equal to zero (i.e., excluding the terms from the equation). Moreover, if the lower-order terms are excluded, the coefficient for the product term and the  $R^2$  for the model will vary with the unknown values of  $c$  and  $d$ . Thus, the earlier conclusions about invariance are true only when all lower-order terms are included.<sup>5</sup>

#### OTHER MODELS FOR INTERACTION

This line of reasoning leads to the conclusion that many potential models for interaction cannot be estimated when some of the variables are measured

<sup>5</sup> The model in (10) does impose a constraint on the  $a_i$  coefficients in the last line of equation (11). Specifically, it requires that  $a_0a_3 = a_1a_2$ . Testing and estimating the model under this constraint requires nonlinear regression techniques of the sort discussed by Draper and Smith (1966).

on interval scales. For example, consider

$$\hat{y} = b_0 x_1^{b_1} x_2^{b_2}, \quad (12)$$

of which (10) is a special case.<sup>6</sup> A frequently suggested approach to estimating this model (Wonnacott and Wonnacott 1970) is to take the logarithm of both sides to produce

$$\log \hat{y} = \log b_0 + b_1 \log x_1 + b_2 \log x_2 \quad (13)$$

and simply regress  $\log y$  on  $\log x_1$  and  $\log x_2$ . But notice that if  $z_1 = x_1 + c$  is substituted into (13), there is no way to simplify so that  $c$  is absorbed into one of the other parameters. Since  $c$  becomes an additional unknown parameter, the model is underidentified and cannot be estimated. Again, if one goes ahead and regresses  $\log y$  on  $\log z_1$  and  $\log x_2$ , the coefficients and the  $R^2$  will vary with  $c$ .

The same argument applies to ratios of scores when the denominator can only be measured at the interval level. Suppose the theoretical model is

$$\hat{y} = b_0 + b_1 x_1 + b_2 x_2 + b_3 (x_2/x_1). \quad (14)$$

If one has only  $z_1$  instead of  $x_1$ , the model cannot be validly estimated; the results will differ for every value of  $c$ . If, on the other hand, one has a ratio-level measure of  $x_1$  but only an interval measure of  $x_2$ , the model can be transformed so that it is not affected by the addition of a constant to  $x_2$ :

$$\hat{y} = b_0^* + b_1 x_1 + b_2 z_2 + b_3 (z_2/x_1) + b_4/x_1 \quad (15)$$

where  $z_2 = x_2 + d$ . In this case,  $d$  is absorbed into the parameters  $b_0^*$  and  $b_4$  and will not affect estimates of the other coefficients.

In general, it appears that when all independent variables are measured at the interval level the only valid way to test for interaction in the framework of least-squares regression is to include product terms and all lower-order terms in the equation. One can check whether any particular model is invariant to scale transformations of the variables by (a) writing the model as though all the variables were measured at the ratio level and (b) substituting variables which add arbitrary constants to the ratio variables. If the constants can be absorbed into one or more parameters, the model is invariant in the sense of generating the same predicted values for  $y$  and, hence, the same  $R^2$ .

A quite different approach is to reduce the interval-level variables to sets of categories and test for interaction by analysis of variance, analysis of covariance, or the equivalent multiple regression using dummy variables. Consider, first, the case of one dichotomous variable and one continuous

<sup>6</sup> This model is well known to economists as a Cobb-Douglas production function which relates output  $y$  to labor  $x_1$  and capital  $x_2$  under the constraint that  $b_2 = 1 - b_1$  (Wonnacott and Wonnacott 1970).

variable. Suppose that  $y$ ,  $x_1$ , and  $x_2$  are all measured on interval scales and the model is

$$\hat{y} = b_0 + b_1x_1 + b_2w + b_3x_1w \quad (16)$$

where  $w = s$  if  $x_2 > m$  and  $w = t$  if  $x_2 \leq m$  and  $s \neq t$ . Since  $w$  is a nominal variable,  $s$  and  $t$  could have any values so long as  $s \neq t$ . It can be shown that recoding  $w$  to change the values of  $s$  and  $t$  could change any or all of the coefficients in the model. Yet, there is a sense in which the model remains unaffected by such changes. First, the  $R^2$  will not change; second, the  $t$ -ratio for the hypothesis that  $b_3 = 0$  will be unaltered. Thus, the test for the presence of interaction does not depend on recoding the variables in the product term.

By appropriate choice of  $s$  and  $t$ , moreover, one can get useful information from the coefficient estimates. The most common coding is to let  $s = 1$  and  $t = 0$  (or vice versa) which produces the following interpretation:

$$\hat{y} = b_0 + b_1x_1 \quad (17)$$

is the regression of  $y$  on  $x_1$  for only those cases where  $x_2 \leq m$ ;

$$\hat{y} = (b_0 + b_2) + (b_1 + b_3)x_1 \quad (18)$$

is the result that would be obtained if  $y$  were regressed on  $x_1$  only for those cases where  $x_2 > m$ . Thus,  $b_3$  is the difference between the slopes for the two groups, and  $b_2$  is the difference in the intercepts.

This well-known result is discussed at length by Gujarati (1970a, 1970b), who also considers the case in which  $x_2$  is divided into more than two categories. The important points in this context are that (a) *any* coding of  $w$  that maintains  $s \neq t$  will give an invariant test for the presence of interaction; (b) if  $x_1$  is measured on an interval scale,  $b_2$  can be made equal to zero by adding an appropriate constant to  $x_1$ ; (c) the standardized coefficients are essentially arbitrary; even with the one-zero coding they have no obvious interpretation.

The case in which both independent variables are reduced to sets of two or more categories is equivalent to two-way analysis of variance with disproportionate cell frequencies. The literature on this topic is too enormous to summarize here. For an introduction see Burke and Schuessler (1974), who point out the nonadditivity of sums of squares and the sensitivity of main effects to the arbitrary constraints imposed on the interaction effects.

## REFERENCES

- Althausen, Robert P. 1971. "Multicollinearity and Non-additive Regression Models." Pp. 453-72 in *Causal Models in the Social Sciences*, edited by H. M. Blalock, Jr. Chicago: Aldine-Atherton.
- Blalock, H. M., Jr. 1965 "Theory Building and the Concept of Interaction." *American Sociological Review* 30 (June): 374-81.

## Interaction in Multiple Regression

- Johnstедt, George W., and Arthur S. Goldberger. 1969. "On the Exact Covariance of Products of Random Variables." *Journal of the American Statistical Association*, vol. 64, pp. 1439-42.
- Marke, Peter J., and Karl Schuessler. 1974. "Alternative Approaches to Analysis of Variance Tables." Pp. 145-88 in *Sociological Methodology 1973-1974*, edited by Herbert L. Costner. San Francisco: Jossey-Bass.
- Draper, N. R., and H. Smith. 1966. *Applied Regression Analysis*. New York: Wiley.
- Pararo, Thomas C. 1973. *Mathematical Sociology*. New York: Wiley.
- Goodman, Leo A. 1960. "On the Exact Variance of Products." *Journal of the American Statistical Association*, vol. 55, pp. 708-13.
- Sujarati, Damodar. 1970a. "Use of Dummy Variables in Testing for Equality between Sets of Coefficients in Two Linear Regressions: A Note." *American Statistician* 24 (February): 50-52.
- . 1970b. "Use of Dummy Variables in Testing for Equality between Sets of Coefficients in Two Linear Regressions: A Generalization." *American Statistician* 24 (December): 18.
- Lays, William L. 1963. *Statistics*. New York: Holt, Rinehart & Winston.
- Vonnacott, Ronald J., and Thomas H. Vonnacott. 1970. *Econometrics*. New York: Wiley.



# The Importance of Being Beautiful: A Reexamination and Racial Comparison<sup>1</sup>

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This research note presents data from new samples of black and white women to compare with the findings presented by Elder and by Taylor and Glenn on the importance of feminine attractiveness versus education as a vehicle for upward mobility through marriage.

In the heterosexual marketplace, men and women bring their valued attributes to exchange for equally valued attributes of the opposite sex. So say both traditional wisdom and contemporary social exchange theory. Certain attributes are valued about equally by all in the market, while others are valued idiosyncratically by different individuals. Those valued by everyone (e.g., the economic potential of males) confer status, while those having idiosyncratic value for particular individuals (e.g., particular psychological traits) provide psychic satisfaction unrelated to status. This research note focuses on attributes known to have universal exchange value. It examines the exchange of physical attractiveness of women for economic status of men. More specifically, it examines the relationship between women's education and their attractiveness as vehicles for achieving status mobility by marriage, a relationship previously reported in papers by Elder (1969) and by Taylor and Glenn (1976). Both papers have shown that attractiveness is related to the occupational status of the husband. Both concluded that attractiveness was more valuable for the woman of low-status origin than for the woman of high-status origin, whereas education was more important than attractiveness for those of high-status origin. Taylor and Glenn sought to identify an interaction between education and attractiveness which suggests that some women use an "education strategy" and some rely on attractiveness rather than education in obtaining a mate of high status.

The present study examines data from samples of black and white married women which enable us to address the main points made in the previous two papers. Because of the similarity in available data, tables are

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organized according to the layout used by Taylor and Glenn, allowing accurate comparison of their findings with those of the present study.

The data for this study derive from area sample surveys in 16 U.S. cities, conducted in 1969–70 and in 1973–74. In 1969–70, area samples of 100 white and 100 black ever-married women aged 15–44 were obtained from the low-income census tracts in each of the 16 cities, except in two where blacks were omitted because of the small black population. Census tracts with race-specific median family incomes of under \$6,000 according to the 1960 census were sampled. The same areas were resurveyed in 1973–74, using the same sample size and sample design. In the analyses reported in this paper, the two time samples were pooled. Blacks and whites were treated as two separate populations for sampling purposes. Therefore, all questions addressed by this research can be answered for blacks and whites separately, and racial comparisons can be made.

A total of 3,309 whites and 2,910 blacks was interviewed. In order to better compare this analysis with that of Taylor and Glenn, data are displayed only for the 1,243 white and 733 black women 25–40 years of age (the age span in their sample) who were currently married and living with their husbands and for whom a status level could be assigned for a male head of household when the respondent was 10–14 years old. However, data from the entire age span lead to the same conclusions as the data presented.

Attractiveness was rated by interviewers in five categories from very unattractive to very attractive. Husband's occupational status is the score of the husband's present occupation on the Nam-Powers scale, which is based on the education and income of particular occupations in the 1960 U.S. census (Nam and Powers 1968). Father's occupational status (or status of origin) is the score of the Nam-Powers scale of the male head of household when the woman was 10–14 years of age. Mobility is husband's occupational status minus father's occupational status. Mean mobility scores are highest in a positive direction for those of lowest origin and negative for those of highest origin.

## RESULTS

The hypothesis that attractiveness is predictive of upward mobility is first tested by the contingency analysis shown in table 1. Within origin categories, upwardly mobile women *are* more attractive than those who are not upwardly mobile, but differences reach statistical significance for only some origin categories.

Both Elder and Taylor and Glenn found a woman's education to be a better predictor of husband's status overall than her attractiveness. A regression analysis of the effects of a woman's father's status, her education,

TABLE 1  
MEAN ATTRACTIVENESS SCORES BY STATUS OF ORIGIN AND MOBILITY  
(Low Scores Indicate Greater Attractiveness)

STATUS OF ORIGIN	BLACK		WHITE	
	Not Upwardly Mobile	Upwardly Mobile	Not Upwardly Mobile	Upwardly Mobile
(Low) 1.....	2.92	2.79	<sup>a</sup>	2.91
2.....	2.79	2.55*	3.00	2.90
3.....	2.82	2.46**	2.93	2.81
(High) 4.....	2.52	<sup>a</sup>	2.75	2.50**

<sup>a</sup> Fewer than 15 cases.

\* Difference by mobility significant at .05 level (one-tailed *t*-test).

\*\* Difference by mobility significant at .01 level (one-tailed *t*-test).

and her attractiveness upon her husband's status was performed and is displayed in table 2. This table is organized to compare with Taylor and Glenn's table 1.

For whites overall, education is more related to husband's status than is attractiveness, with attractiveness having statistically significant but generally trivial relationships to husband's status. This is generally consistent with the findings of Taylor and Glenn. For blacks, education and attractiveness are about equally good predictors of husband's status, with education more important than attractiveness only for the oldest part of the sample.

Both previous studies report that for the attainment of a husband of high status attractiveness is more important for women of low-status origin, whereas education is more important for those of high-status origin. The same regression analysis as in table 2 was performed for each status-of-origin category. The results are displayed in table 3, which corresponds to Taylor and Glenn's table 2. For the data concerning white women, the superiority of education over attractiveness holds about equally for all origin categories. The betas for education are around .20 for each origin and all statistically significant. The betas for attractiveness are all under .10, and all fail to reach statistical significance. At first this statement appears to contradict the findings of Elder and of Taylor and Glenn. However, neither of these previous studies reported a *statistically significant* difference between origin categories in predictive power for either education or attractiveness. Therefore there is no contradiction in the *data*, but simply in the *interpretation* of nonsignificant differences.

Both previous studies eventually arrived at an argument that attractiveness and education could be seen as alternate paths to mobility through marriage. Taylor and Glenn offer an analysis of the relationship between attractiveness and husband's status for high- and low-education women

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TABLE 2

REGRESSION OF HUSBAND'S OCCUPATIONAL STATUS ON WOMEN'S STATUS  
OF ORIGIN, EDUCATION, AND ATTRACTIVENESS

	BLACK			WHITE		
	<i>r</i>	beta	<i>b</i>	<i>r</i>	beta	<i>b</i>
Ages 25-40 (Black: $r^2 = .0865$ , * $N = 717$ ; White: $r^2 = .10143$ , * $N = 1,222$ ):						
Status of origin.	.14426 (.0208)	.08759	0.09577*	.22113 (.0489)	.13564	0.13185*
Education . . . . .	.23393 (.0547)	.18177	1.69538*	.28371 (.0805)	.21561	2.21829*
Attractiveness..	-.20202 (.0408)	-.15516	-4.03869*	-.14573 (.0212)	-.07044	-1.82457*
Ages 25-29 (Black: $r^2 = .12593$ , * $N = 254$ ; White: $r^2 = .06953$ , * $N = 525$ ):						
Status of origin.	.07799 (.00608)	.02739	0.03031	.18307 (.0335)	.11792	0.1245*
Education . . . . .	.27062 (.0732)	.22544	2.50418*	.23821 (.0567)	.19328	2.12291*
Attractiveness..	-.27140 (.0731)	-.23133	-6.2245*	-.08208 (.0067)	-.02315	-0.63315
Ages 30-34 (Black: $r^2 = .09212$ , * $N = 215$ ; White: $r^2 = .15235$ , * $N = 348$ ):						
Status of origin.	.26968 (.0727)	.24666	0.26192*	.26469 (.0701)	.14987	0.14713*
Education . . . . .	.13434 (.018)	.08620	0.82135	.33697 (.114)	.23785	2.6186*
Attractiveness..	-.14220 (.0202)	-.09861	-2.33351	-.23858 (.0569)	-.13637	-3.61364*
Ages 35-40 (Black: $r^2 = .08551$ , $N = 247$ ; White: $r^2 = .13725$ , $N = 349$ ):						
Status of origin.	.08402 (.00706)	.00161	0.00182	.24871 (.0619)	.14731	0.12485*
Education . . . . .	.26838 (.072)	.23809	1.9459*	.32858 (.1078)	.25487	2.3375*
Attractiveness..	-.17929 (.0321)	-.11979	-3.31207	-.16634 (.0277)	-.10171	-2.40973*

NOTE.— $r^2$  in parentheses.

\* Statistically significant at .05 level.

separately and for each status of origin. They are unable to confirm a difference in the relationship by educational level for any status of origin. Data from the present study examining the same relationship are presented in table 4, which corresponds to Taylor and Glenn's table 3. In table 4, "high education" means "some college." Even though it created grossly unequal  $N$ 's, this cutting point was used because both previous studies have emphasized the importance for women of going to college as an avenue of access to high-status men.

For white, low-education women of each category of origin, the  $b$ 's are negative, indicating that the more attractive get the high-status husbands. For the high-education women, the slopes are positive, but not significant. The difference between the  $b$ 's for high and low education women is significant in each status of origin and for the total white sample. We conclude

TABLE 3  
A COMPARISON OF THE REGRESSIONS OF HUSBAND'S OCCUPATIONAL STATUS ON  
WOMEN'S EDUCATION AND ATTRACTIVENESS BY STATUS OF ORIGIN

STATUS OF ORIGIN	r		beta		b		R <sup>2</sup>	N
	Education	Attractiveness	Education	Attractiveness	Education	Attractiveness		
Black								
(Low) 1.....	.16313 (.0266)	-.23903 (.0571)	.117	-.214	0.958*	-5.308*	.07011*	342
2.....	.31971 (.1022)	-.14326 (.0205)	.304	-.090	3.630*	-2.374	.11003*	209
3.....	.15731 (.0247)	-.21277 (.0453)	.124	-.191	1.242	-5.121*	.06005*	112
(High) 4.....	.29283 (.0837)	-.09080 (.00824)	.289	-.078	2.601*	-2.091	.09177	51
White								
(Low) 1.....	.20861 (.0435)	-.08685 (.00754)	.200	-.030	1.734*	-0.762	.04436*	179
2.....	.26344 (.0694)	-.12175 (.0148)	.249	-.070	2.810*	-1.793	.07402	302
3.....	.20362 (.0415)	-.12269 (.0151)	.187	-.087	1.947*	-2.082	.04868*	339
(High) 4.....	.27152 (.0737)	-.16882 (.0285)	.242	-.090	2.836*	-2.438	.08104	387

NOTE.—<sup>a</sup> in parentheses.

\* Statistically significant at .05 level.

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TABLE 4

REGRESSION OF HUSBAND'S OCCUPATIONAL STATUS ON WOMEN'S ATTRACTIVENESS BY STATUS OF ORIGIN AND EDUCATION  
(Unstandardized Coefficients)

STATUS OF ORIGIN	ATTRACTIVENESS					
	BLACK			WHITE		
	Low Educ.	High Educ.	Diff.	Low Educ.	High Educ.	Diff.
(Low) . . .	-4.2927* (449)	-10.6254* (56)	6.3327*	-2.9557* (447)	4.0407 (37)	-6.9964*
(High) . . .	-4.8643* (130)	-3.0342 (34)	-1.8301	-4.5135* (590)	3.1804 (148)	-7.6939*

NOTE.—*N*'s in parentheses.

\* Statistically significant at .05 level.

that for whites, if a woman does not go to college, her attractiveness is an important determinant of whether or not she gets a high-status husband. If a woman does go to college, her attractiveness is unimportant in determining whether or not she gets a high-status husband.

For blacks the picture is different. For low-education blacks, the relationship between attractiveness and husband's status has a negative and significant slope. For high-education blacks, the same relationship is significantly stronger in the same direction. That is to say, for high-education blacks, the predictive power of attractiveness for marrying a high-status husband is *greater* than it is for low-education blacks, or just the opposite of the findings for whites. When the relationship for blacks is examined within status origin categories, it becomes even more complicated. For low-origin blacks, the *b* is significantly more negative for high- than for low-education women, while for blacks of high-status origin, educational attainment does not discriminate different slopes. Put another way, if a black woman does not go to college, attractiveness is an important determinant of whether or not she obtains a high-status husband. But if she goes to college, attractiveness is an even more significant determinant of whether or not she gets a high-status husband, especially if she is of low-status origin.

### CONCLUSIONS

The findings indicate three general conclusions.

1. Consistent with the findings of both previous studies, attractiveness is significantly related to status attainment through marriage. However, it does not explain much of the variance in mobility or in husband's status. For whites, education appears to be the stronger predictor overall, as the previous studies have found. For blacks, on the other hand, education and attractiveness are about equally good predictors.

2. For neither blacks nor whites does the relative strength of education and attractiveness for predicting status mobility through marriage vary systematically by status of origin. Both previous studies report that attractiveness is more important for low-origin than for high-origin women. But in fact neither previous study shows statistically significant differences in effects by status origin.

3. The attractiveness-mobility relationship is stronger for low-education than for high-education whites of whatever status origin. But it is stronger for high-education than for low-education blacks. For the small number of high-education blacks from low-status origins, the positive relationship between attractiveness and husband's occupation is particularly strong. Therefore the interaction of education and attractiveness suspected but not demonstrated by the earlier researchers is confirmed.

This we interpret as follows: If a white woman goes to college, her attractiveness has no bearing on the status level of her husband's occupation. If she does not, then her attractiveness has a strong bearing on whether or not she gets a high-status husband. This relationship holds whether she comes from a low-status or a high-status origin. For the black woman, attractiveness plays an important role in getting a high-status husband, whether or not she goes to college. But it plays a stronger role if she goes to college than if she does not. It is especially important for those of low-status origin who go to college.

When attention is focused on the substantive importance rather than the statistical significance of the findings, the nonimportance of the role of attractiveness is striking. In no cell in any table does attractiveness explain as much as 10% of the variance in mobility status. In most cells, it does not explain 5%. No one has ever doubted it played some role in heterosexual relationships. But its overpowering impact in first encounters stands in sharp contrast to this mere trace of influence on mobility. The original exchange theory from which we began has led us to shed only a feeble light on the achievement of status mobility through marriage. Perhaps feminine beauty, like a beautiful day or a beautiful flower, is a lifter of the spirit and a quickener of the blood, but only a minor disturbance in the serious business of allocating the other scarce resources of the world.

#### REFERENCES

- Elder, G. H., Jr. 1969. "Appearance and Education in Marriage Mobility." *American Sociological Review* 34 (August): 519-33.
- Nam, Charles B., and Mary G. Powers. 1968. "Changes in the Relative Status Level of Workers in the United States, 1950-1960." *Social Forces* 47 (December): 158-71.
- Taylor, Patricia Ann, and Norval D. Glenn. 1976. "The Utility of Education and Attractiveness for Females' Status Attainment through Marriage." *American Sociological Review* 41 (June): 484-97.

## **New Policy on Commentary and Debate**

Comments submitted for the section of Commentary and Debate should be limited to brief critiques, addressing specific errors or flaws in articles and reviews published in the *AJS*. Comments on articles are not to exceed 1,500 words, those on reviews 750 words. Authors of articles and reviews are invited to reply to comments, subject to the same length limits. The *AJS* will not publish commenters' rebuttals to authors' replies. Longer or less narrowly focused comments on articles published in the *AJS* should be submitted for consideration as articles.

## **Commentary and Debate**

### **MAYHEW AND LEVINGER'S USE OF RANDOM MODELS**

The use of random models of interaction, as exemplified by Mayhew and Levinger (*AJS* 81 [March 1976]: 1017-49), in the analysis of organizational and political processes raises serious questions. Elsewhere (Mayhew 1973) as well as here, the claim is made that there are at least two alternative interpretations for a set of data which conform to a random model: either the phenomena are indeed a random process, or else there are social forces producing the equivalent of random expectations. Mayhew and Levinger (p. 1033) suggest that: "Only when this second possibility has been ruled out can the first be given realistic consideration. That is, only after we have exhausted all other other contingencies would we conclude that inequality in power structure, like molecular motion, is best described by a purely random process." This is a puzzling claim, rather contrary to the usual practice in statistical analysis. Usually, we try to rule out chance before we feel we can turn to other explanations. But the argument in any case is not central to their concerns. More important, they think that the random model provides a sort of "baseline." There are some objections to their claims.

1. Their statement of the Michels-Mosca arguments requires reexamination. Although my remarks apply to the material on both Mosca and Michels, I shall confine myself here to the Michels argument. In order to use a mathematical model, they conceptualize an elite as simply a minority



- (any number less than half the size of any group). But such a definition of elite is surely insufficient. Elites are indeed small in numbers, but that is of little interest in itself. An elite, if the concept is to have any distinctive sociological value, has two major features:

a) Others must look up to the group (the elite), wish to emulate it or join it, and the elite must themselves have some sense of group pride, a sense of being elects who deserve their role and take it seriously (Nadel 1956). This hardly follows from the mere fact of being a minority.

b) The sheer fact that a small group rules is of little significance, for that is almost always the case. Except in the simplest kind of situations (small groups for minor matters requiring little expertise), there must always be a minority since only a minority can act in some reasonable time to accomplish an end for the group. The town-hall type of democracy is highly limited, requiring all sorts of conditions for successful operation. So students of democracy from de Tocqueville to Schumpeter and on to Lipset and others freely concede that participatory democracy will not work for large numbers. But if that were all there was to the elite argument, democracy would be impossible and we would have to adopt the position that Mayhew and Levinger indeed come to in the Appendix to their article, where democracy is dismissed as a "mirage" or a "form of propaganda." But they leave out the central point. The question is not whether a minority rules: it usually does. The question is, Is it possible for the majority to *reject* the minority and replace it with another one (Parry 1969, p. 31)?

This second feature of elites is clearly the major structural one (the first being social psychological), and the authors hardly touch it. They seem to show awareness of it at one point where they concede that their model does not explain the "stabilization of social structure over time," except for the possible operation of a "learning paradigm"—a highly inefficient process, even if it occasionally exists. It is precisely in "stabilization" that the heart of the matter lies. The point is not that a mere minority rules but that they will not let anybody else rule. The random model requires only that there be a minority ruling. That could easily be attained by a perfectly democratic model in which *everyone* takes his turn at becoming part of the ruling minority. At one time, the Israeli kibbutzim tried something of the sort, and there are occasional examples of choice of leaders by lot (the newly formed Society for the Study of Symbolic Interaction recently ran its election of officers in that way). So it is possible, but it would hardly be an example of what Michels (or Mosca) was talking about—just the opposite.

2. To show that any given result *could* occur by chance is really not persuasive. A golfer can hit a hole in one by chance; the Kon-Tiki expedition shows that it is possible to make it from South America to the South Seas in a raft. Proof requires something a lot stronger. Mayhew and Levinger do claim they have something stronger, namely, that the probability

is high that chance alone will generate various social results. If so, it seems peculiar that oligarchies spend so much time defending themselves. One is driven to a paradox first suggested by Gouldner (1955, p. 506) when he offered an "iron law of democracy." Gouldner drew this conclusion from the claim of Michels that there is a *tendency* toward oligarchy. If there is such a tendency, clearly conditions a good deal of the time must be the opposite—that is, democratic. Apparently, democracy is the "usual" condition; otherwise the "tendency" would have long since worked itself out and there would be no evidence of the law of oligarchy operating.

The random model offered by Mayhew and Levinger suggests the same conclusion from a different argument. If chance alone will result in the emergence of an elite, then there must be something operating to upset it all the time, or else elites would not have to spend all their time defending their positions. Elites might be highly amused to learn that their position might be due to random processes.

Having made these critical remarks, let me hasten to say that I am not condemning mathematical approaches as such. Mathematical models do offer useful baselines. Mathematical conditions may suggest constraints, for example. Thus Kephart's (1950) classic work on family size is an example of "what is possible" in the way of relationships in families of various sizes. Similarly, the work of the classical theorists of scientific management on span of control was useful in raising the question of how many persons or relationships a person could supervise. But even there, the work of later organizational theorists shows that such work was very risky, since in reality these limits are never attained. Mathematical models are also highly useful in positing possible relationships which may then actually be tried out (Forrester 1961). The appropriateness of the chance models offered by Mayhew and Levinger is not so clear.<sup>1</sup>

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#### REFERENCES

- Forrester, Jay W. 1961. *Industrial Dynamics*. Cambridge, Mass.: M.I.T. Press.
- Gouldner, Alvin W. 1955. "Metaphysical Pathos and the Theory of Bureaucracy." *American Political Science Review* 59 (June): 496-507.
- Kephart, William M. 1950. "A Quantitative Analysis of Intragroup Relationships." *American Journal of Sociology* 55 (May): 544-49.
- Mayhew, Bruce H. 1973. "System Size and Ruling Elites." *American Sociological Review* 38 (August): 468-75.
- Nadel, S. F. 1956. "The Concept of Social Elites." *International Social Science Bulletin* 8 (3): 413-34.
- Parry, Geraint. 1969. *Political Elites*. New York: Praeger.

<sup>1</sup> Ed. Note.—Mayhew and Levinger have been invited to reply to this comment and the two following ones.

• MATHEMATICAL MODELS IN THE STUDY OF POWER:  
COMMENT ON MAYHEW AND LEVINGER

Mayhew and Levinger (*AJS* 81 [March 1976]: 1017-45) have reported a model which attempts to explain the exclusion of individuals from effective participation in social organizations which appear to be growing larger in scale in modern societies. Beginning from apparently neutral assumptions about the decision-making process in face-to-face groups, the authors provide logical support for the theorems that (1) "the expected concentration of power is an increasing function of group size" (p. 1026), (2) "the expected relative size of the controlling component is a decreasing function of group size" (p. 1028), and (3) "the expected concentration of power within the controlling component is a decreasing function of group size" (p. 1031).

The main purpose of the model is to provide a baseline for use in empirical research. The paradox of the present model, which provides its significance as a research tool, is that the mere assumption of random interaction (i.e., equal probabilities of participation by every group member in every decision) seems to lead to a baseline model which predicts increasing concentration of power as groups become larger. Thus it is concluded that " 'conspiracy' theories of elite formation are not required to account for the occurrence of oligarchy in conditions of focused, face-to-face interaction. Oligarchic structures will develop, as we have seen, in the absence of concerted efforts by coalitions" (p. 1029), merely as an effect of group size.

Students of power and organization will be interested in the propriety of such a baseline. Particularly since the publication of Blau's (1970) theoretical discussion of the effects of system size on structural differentiation, researchers have shown special interest in the importance of size in complex organizations. The effects of size on participation and power in societies (Dahl and Tufte 1973) and communities (Clark 1968) have also been the objects of recent attention. We evaluate here the Mayhew-Levinger model and explore some alternative formulations. We argue that an appropriate model depends heavily on what the researchers believe to be the correct underlying assumptions. We intend to demonstrate that significant substantive decisions are implicit in Mayhew and Levinger's model, in particular that they have selected assumptions which heavily bias their "baseline" in favor of "oligarchic" outcomes. We examine variations of their model to determine whether size and oligarchy are necessarily related given plausible alternative assumptions.

### The Sequential Decision Model

The Mayhew-Levinger formalization can be briefly summarized. Suppose that power is conceived in terms of influence exerted on discrete decisions in a continuing sequence. Suppose further that every such decision is made by only one group member and that every member has an equal chance of acting as the decision maker at every point in the sequence. This implies that for any given sequence length  $L$  (note that setting the sequence length limits the number of decisions which may be allocated among group members), the larger the group size  $N$ , the smaller the proportion of group members likely to participate in power. For large groups and short sequences ( $N > L$ ) it is impossible for all members to participate. As the number of members grows relative to sequence length, so does the probability that more members will be excluded from decision. Thus if it is reasonable to limit the maximum sequence length to some fixed number (as Mayhew and Levinger do on the basis of "the limits of human information processing" [p. 1021]), it follows directly that increasing group size in this model implies increasing inequality in decision making.

Such inequality is measured in three ways by Mayhew and Levinger. The simplest measures are  $R$ , the proportion of members who make decisions in the given sequence, and  $n$ , the number of members who make at least one decision in a sequence. The  $E(R)$  declines with group size (table 2, p. 1028), while  $E(n)$  increases with group size (p. 1031) as long as the number of decisions to be made remains constant. The third measure, the "coefficient of sequence inequality,"  $K$ , is used as a measure of the "concentration of power" (p. 1025). While quite complex mathematically,  $K$  turns out to be approximately the inverse of  $R$ , and  $E(K)$  thus increases with group size (table 1, p. 1025).

### Interpreting the Sequential Decision Model

In order to evaluate this model, we are concerned first with interpreting its theoretical implications. The implication of declining proportions of members who participate in decision making is interpreted by Mayhew and Levinger as emergence of a "ruling elite" in large groups. Increasing inequality in decision making indicated by  $E(K)$  is similarly interpreted in terms of oligarchic power structure. To begin with, it should be noted that these interpretations are based on definitions of ruling elite and oligarchy which conform little to the classic elite theories. In Michels (1962), for instance, the law of oligarchy refers to the ability of minorities to attain stable control of group decision making, to represent their own rather than the majority's interests, and to deflect organizational goals to system maintenance. Generally, what is considered to be the minimal

criterion of elite status is the ability of a politically active minority to maintain control of a series of events (Dahl 1961; Bachrach 1967). In the framework provided by Mayhew and Levinger, this could be operationalized as the probability,  $P$ , that any given subgroup of  $q$  members would control all events. This is given by the following equation:

$$P = (q/N)^L, \quad (1)$$

where  $N$  is group size and  $L$  is sequence length. Under these assumptions the probability of "oligarchy" is a decreasing function of group size, the reverse of the relationship derived from the Mayhew-Levinger model. As the authors themselves demonstrate, the larger the group in this model, the more likely that every decision will be made by a different randomly drawn member; the "elites" thus constituted will be highly transient across sequences.

The phenomenon which Mayhew and Levinger have tapped in their model is actually more closely related to the theory of individual alienation and powerlessness in large-scale mass society (Coleman 1973; Mills 1956). If it can be shown that increasing proportions of members are necessarily excluded from power in larger groups, it may be irrelevant to the individual that there is no stable ruling elite. The individual may infer an oligarchical structure from the fact of his own exclusion. But it is exclusion of individuals from decision making which is implied by the sequential decision model, not oligarchy in the classical sense.

### Alternative Assumptions

The implication of exclusion of individuals from participation in large groups merits closer examination. It stems from two aspects of the model: (1) the assumption that sequence length can be fixed in the five to nine range, and (2) the specification that every decision is controlled by one and only one group member. The limit to sequence length, as noted above, means that decisions are a scarce commodity; the assignment of every decision to one member means that decisions are also an indivisible commodity. Let us explore the implications of changing one or the other of these assumptions.

Let us suppose first that the number of decisions to be made, or "events" to be "controlled," is not limited to the five to nine range. Many continuing groups have discrete events that are more numerous than this range, for instance, periodic elections of officers, chairing of meetings, daily allocation of resources, and many others. In general, other than for informal face-to-face groups of short duration, there appears to be no need to limit the number of events to nine, since the persistence of a group

structure is not usually dependent on the immediate memory of individuals. Continuing groups typically establish formal procedures, authority relationships, and documentation to assure coherence over numerous discrete events. In these cases it may be shown (see the following section) that the assumption of random interaction can imply either no relationship of size to exclusion, or even an inverse relationship if added numbers increase disproportionately the number of decisions to be made. The latter inference is not unreasonable; it has been argued, for instance, that size increases system complexity (Dahl and Tufte 1973; Blau and Schoenherr 1970), and this complexity may multiply the available number of events that need to be controlled at a faster rate than the increase in the number of members, since the number of system events would be a function of the possible relationships between members (Graicunas 1933). If sequence length advances at the same rate as system size, concentration of power will remain at least approximately equal by the  $E(K)$  measure (table 1, p. 1025); and if length advances only somewhat faster than size, concentration of power will remain equal by the  $E(R)$  measure (table 2, p. 1028).

Let us now consider the stipulation in the Mayhew-Levinger model that a decision can be made by one person only. It follows that the proportion of members involved in any single decision varies inversely with size; it is simply  $1/N$ . This is in fact an assumption of a rather pronounced form of concentration of power. There may well be contexts in which it is reasonable to designate a single person as in some sense controlling a single event (e.g., the initiator of a proposal in a small group). But a model based on such an assumption seems inapplicable to a broad range of contexts in which decisions are made by coalitions within groups, by majority rule, etc. These are the cases in which, not having assumed one-person rule on discrete decisions, it is especially interesting to test the effects of group size on the pattern of participation across a series of decisions.

Admitting the possibility of multiple participation in each decision has one automatic consequence regardless of the actual decision rule employed: The expected value of inequality at any given size and sequence length declines according to the likelihood and degree of multiple participation. Even a mild relaxation of the Mayhew-Levinger assumption of one-person decisions has a substantial effect. Suppose, for example, that it requires two persons to make a decision. Then the probability that any given group member will be excluded from every decision declines from  $[(N-1)/N]L$  to  $[(N-2)/N]L$ . For sequence length five and a group size of 21, the probability changes from .784 to .606. With larger sequence lengths and for smaller group sizes the contrasts are even more striking.

# Generalizing the Mayhew-Levinger Model

Of course every model involves a certain number of simplifying assumptions and a certain abstraction from reality. In this instance we argue that it is not necessary to be limited to the assumptions used in the Mayhew-Levinger model, and that alternative assumptions produce different relationships between size and oligarchy. It is in fact possible to work from a more general model in which alternative assumptions concerning sequence length and participation in discrete decisions may be explicitly introduced.

Let us suppose that in a group of size  $N$  there is a series of  $L$  discrete decisions to be made. Let us further suppose that the proportion of members,  $p$ , who participate in decisions is the same for each decision in the series. For the purpose of building a baseline model (providing the appropriate null hypothesis for testing the theory that inequality in large groups is due to nonrandom processes such as coalition building, etc.), we also suppose that all group members have an equal chance of participating in each decision. We can then provide equations linking system size to the expected number,  $E(n)$ , or the expected proportion,  $E(R)$ , of members who participate in at least one decision. Any member's probability of participation in at least one decision is  $1 - (1 - p)^L$ . Across a large number of sequences this is also the expression for the average proportion of members who participate in at least one decision. Thus:

$$E(R) = 1 - (1 - p)^L, \quad (2)$$

$$E(n) = N [1 - (1 - p)^L]. \quad (3)$$

For  $0 < p < 1$ , it is easily seen that  $E(R)$  and  $E(n)$  are both increasing functions of sequence length  $L$ ; this finding reproduces a result reported by Mayhew and Levinger but without assuming one-person rule on each decision. With unlimited  $L$ ,  $E(R)$  approaches its limit of 1 and  $E(n)$  approaches  $N$ . It is the case, as would be intuitively anticipated, that  $E(R)$  and  $E(n)$  increase with  $p$ , the probability of each member's participation in any single decision. However, while  $E(n)$  increases linearly with group size  $N$ ,  $E(R)$  has no necessary relation to  $N$  in the general model.

In some instances it may be possible to introduce additional assumptions concerning the relationships among the parameters of the general model. Preferably these assumptions will be based on an assessment of the empirical context in which the model will be applied. It is likely that such modifications will alter the baseline predictions of equations (2) and (3), as we show in the following examples:

1. Suppose, as in the Mayhew-Levinger model, that only one person can be involved in any single decision. Then  $p = 1/N$ , and  $p$  necessarily declines with system size. In this case:

$$E(R)' = 1 - (1 - 1/N)^L, \quad (4)$$

$$E(n)' = N [1 - (1 - 1/N)^L]. \quad (5)$$

Now, with  $L$  held constant,  $E(R)$  declines with size, as Mayhew and Levinger report, and  $E(n)$  increases with a limit of  $L$  as  $N$  approaches infinity.

2. Suppose alternatively that there is minority rule on all decisions ( $p < .5$ ), but that due to increased complexity there is also a trend toward decentralization in large groups so that the number of persons,  $q$ , involved in any group decision increases with  $N$  (Blau and Schoenherr 1970; Chandler 1962; Thompson 1967, p. 136). Then  $p = q/N$ . We found in the general model that, with  $L$  and  $p$  held constant,  $E(R)$  is not related to  $N$ . In the present case  $E(R)$  increases with  $N$  for values of  $N$  where  $dq/dN > 1$ , since  $p$  must necessarily increase, forcing an increase in  $R$ . When  $dq/dN < 1$ ,  $E(R)$  declines since  $p$  is then decreasing. However,  $E(n)$  always increases with  $N$ , with  $L$  held constant.

3. Finally, suppose that the number and kinds of decisions in groups increase with size, as suggested earlier. In this case,  $L = f(n)$  such that  $dL > dN$ . If it is assumed that  $p$  is held constant, it is easy to see that  $E(R)$  will increase with  $L$ , since there are no other variables in the model (see eq. [2]). And it should be obvious that  $E(n)$  will increase even more as a function of  $N$ . The more interesting case where  $q$  is held constant and  $dL > dN$  is more difficult, but as noted earlier table 2 (p. 1028) indicates that if the rate of change of  $L$  is somewhat more than the rate of change of  $N$ ,  $E(R)$  will not decrease with group size.

The general model has been elaborated for only two measures of inequality,  $E(R)$  and  $E(n)$ . It should be possible to investigate also the relationship of  $E(K)$  to  $p$ ,  $L$ , and  $n$  in the same way, although extending the Mayhew-Levinger results to various values of  $p$  would be exceedingly tedious. We would expect to find that  $E(K)$  behaves similarly to the inverse of  $E(R)$  and would have no necessary relation to  $N$  in the absence of additional restrictive assumptions.

Thus the Mayhew-Levinger model has been shown to be a special case of a more general sequential decision model. In the more general model, there is no fixed relationship between group size and concentration of decision making. Additional theoretical assumptions can be made which alter this result, but such assumptions should be chosen only after consideration of the whole range of alternatives: how are single decisions made, how many decisions are there in the sequence, how is the sequence size related to group size, and how does decision making on discrete decisions vary with group size?



• Application of the Baseline Model

In their discussion of the model as a baseline predictor (p. 1034), Mayhew and Levinger do not claim that the model applies deterministically, since they admit the possibility that actual power structures may deviate from that predicted by the model. Presumably deviations from the expected values would be caused by such social factors as widespread education, mandated rotation of positions, mass organization, etc. However, what is troublesome to us about their presentation is the repeated statement that oligarchy is the expected outcome merely of size and random interaction. In fact, as we have shown, further assumptions are made (one-person rule, limit of sequence length) that go much beyond that of "random interaction." We have demonstrated here that (a) under a more plausible definition of oligarchy—namely, elite domination of a series of decisions—oligarchy is *decreasingly* likely as a function of size, if one makes precisely the same assumptions as in the Mayhew-Levinger model; and (b) using their definitions of concentration of power but alternative assumptions, one may find either a positive relation, a negative relation, or no relation between size and expected concentration of power. Oligarchy, or concentration of power, therefore cannot be considered a function of size plus random interaction.

The existence of alternative assumptions does not imply the impossibility of fruitful use of such baseline models in empirical research. It is, however, necessary to articulate and justify the assumptions used.

Any of the variants of the general sequential decision model can in a sense be tested by comparing its expected concentration of decision making  $E(R)$  at various size levels with the actual values of  $R$  derived from empirical research. It is not correct, however, to presume that deviation from  $E(R)$  is a test of the assumption of equal probabilities of decision making by every-group member. Deviations might as well result from errors in any other assumption of the model.

With the proper data it is possible to test every element of the general model and thus provide empirical estimates of  $R$ ,  $n$ ,  $p$ , and  $L$  at various values of  $N$  and to estimate the relationships among  $N$ ,  $p$ , and  $L$ . Once the model is corrected according to these findings, the quantity  $R - E(R)$  does represent the degree to which some group members have better than chance probabilities of participation and/or the degree to which participation in one decision affects participation in later ones.

Conclusion

The rate of publication of mathematical formalizations of social theory in recent years suggests a growing concern among sociologists with precision

and clarity in their theoretical statements. The Mayhew-Levinger model is only one of numerous formulations of the expected relationship between system size and structural differentiation, concentration of power, and individual alienation (Hummon 1971; Coleman 1973; Niemi and Weisberg 1972). Their model is not untypical in illustrating some problems in the development of mathematical sociology. Lazarsfeld and Henry, in the introduction to their early collection of readings in mathematical social science, have stated succinctly the utility of mathematical models: "Sometimes they provide a language that tends to clarify the assumptions behind, and the consequences of ideas that are rather vague when expressed in conventional verbal terms. In other cases mathematical models represent real theories of their own that can be tested against empirical data; some of these models provide rationales for organizing and sifting the increasing amount of data that is available from experiments and surveys" (Lazarsfeld and Henry 1968, p. 3). In principle no mathematical sociologist will disagree with this statement. In practice sociologists sometimes commit one or another of the following errors when dealing with formal models:

1. Reification: A mathematical model is a statement of theory, with no necessary empirical validity. But the development of elaborate and complex measures and logical deductions may create an illusion that the conclusions derived from a model are proven valid statements about the social world—the kind of "synthetic a priori" statements that have been so attractive but elusive to philosophers. Mathematical sociologists may slip into this trap even when they explicitly deny empirical validity to their model.

2. Neglect of plausible alternative assumptions: A formal model necessarily relies on its initial definitions and assumptions, and indeed most critical discussion of existing models has focused on the propriety of the particular definitions and assumptions that were employed. Yet sociologists often state these choices briefly or in a mathematical form which deflects attention from their substantive meaning and validity and devote themselves primarily to drawing out their implications. In order to make the model fully accessible and open to evaluation by less mathematically oriented researchers, the mathematical sociologist has a responsibility to evaluate and defend the theory of society embodied in his initial assumptions and to consider the consequences of reasonable alternatives as explicitly and precisely as he manipulates the resulting equations.

3. Displacement: While it is necessary to simplify reality in order to represent it in a formal model, there is a temptation to operationalize important variables in terms most amenable to their uses in the model. A theoretically complex concept (e.g., oligarchy) will be reduced to a sim-

pler or more directly measurable indicator (e.g., inequality in decision making in brief sequences), leading to a misinterpretation of the results. Thus while the intention is to focus on a certain aspect of social reality, attention is displaced to an indicator that has limited or even doubtful validity. Displacement seems especially to occur in the study of power, a phenomenon which has proven to be particularly intractable to the efforts of mathematical sociology (a well-known example of such misinterpretation is the M.O.P. ratio as a measure of concentration of power in communities [Aiken 1970, p. 503]).

We thus wish to urge caution in the interpretation of mathematical baseline models such as the one presented by Mayhew and Levinger. We feel unwarranted conclusions can be drawn by readers dazzled by the model's complexity and unaware of its limitations. The clear implication of their model is that size as a structural property has a direct positive effect on concentration of power, an effect that in the absence of other factors and in the long run is deterministic. We have shown that size is in fact associated with concentration of power only under certain restrictive assumptions concerning social reality. Distinguishing, evaluating, and testing those and alternative assumptions are the tasks of an empirically based sociology; mathematical models will provide no shortcut.

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#### REFERENCES

- Aiken, Michael. 1970. "The Distribution of Community Power: Structural Bases and Social Consequences." Pp. 487-525 in *The Structure of Community Power*, edited by M. Aiken and P. Mott. New York: Random House.
- Bachrach, Peter. 1967. *The Theory of Democratic Elitism: A Critique*. Boston: Little, Brown.
- Blau, Peter. 1970. "A Formal Theory of Differentiation in Organizations." *American Sociological Review* 35 (April): 201-18.
- Blau, Peter, and Richard A. Schoenherr. 1970. *The Structure of Organizations*. New York: Basic.
- Chandler, Alfred D., Jr. 1962. *Strategy and Structure*. Cambridge, Mass.: M.I.T. Press.
- Clark, Terry N. 1968. "Community Structure, Decision-Making, Budget Expenditures, and Urban Renewal in 51 American Cities." *American Sociological Review* 33 (August): 576-93.
- Coleman, James S. 1973. "Loss of Power." *American Sociological Review* 38 (February): 1-17.
- Dahl, Robert A. 1961. *Who Governs? Democracy and Power in an American City*. New Haven, Conn.: Yale University Press.
- Dahl, Robert A., and Edward R. Tufte. 1973. *Size and Democracy*. Stanford, Calif.: Stanford University Press.
- Graicunas, V. A. 1933. "Relationships in Organization." *Bulletin of the International Management Association* 7 (March): 39-42.
- Hummon, Norman P. 1971. "A Mathematical Theory of Differentiation in Organizations." *American Sociological Review* 36 (April): 297-303.

- Lazarsfeld, Paul F., and Neil Henry, eds. 1968. *Readings in Mathematical Social Science*. Cambridge, Mass.: M.I.T. Press.
- Michels, Robert. 1962. *Political Parties*. Translated by Eden Paul and Cedare Paul. New York: Free Press.
- Mills, C. W. 1956. *The Power Elite*. London: Oxford University Press.
- Niemi, R. G., and H. F. Weisberg. 1972. "The Effects of Group Size on Collective Decision-Making." Pp. 125-48 in *Probability Models of Collective Decision-Making*, edited by R. G. Niemi and H. F. Weisberg. Columbus, Ohio: Merrill.
- Thompson, James D. 1967. *Organizations in Action*. New York: McGraw-Hill.

## COMMENT ON "OLIGARCHY IN HUMAN INTERACTION"

Mayhew and Levinger (*AJS* 81 [March 1976]: 1017-49) claim to show that Michels's "iron law of oligarchy" and Mosca's major proposition on system size and ruling elites can be formally derived from the nature of human interaction. It is my contention that one of their theorems is incorrectly stated, that another (although true) is incorrectly proved, and that the derivation of all five is based on a restriction that excludes most of the sorts of power situations in which Michels, Mosca, and sociologists since have been interested.

Mayhew and Levinger begin by defining focused interaction as situations of face-to-face communication and consider a group composed of  $N$  actors in which the communication occurs. (It will be understood throughout this comment that actresses are equally permitted.) The situation is characterized as a series of  $L$  communication events, and each event is characterized by the identity of the speaker.<sup>1</sup> If we consider the complete sequence of  $L$  communications, each actor  $i$  can be characterized by the proportion of events which were his,  $0 \leq p_i \leq 1$ .

Each particular sequence structure can be described by a coefficient of inequality:

$$K = \frac{\frac{1}{2} \sum_{i=1}^N \sum_{j=1}^N |p_i - p_j|}{(N - 1)}.$$

Mayhew and Levinger note that  $K = 1$  when one person speaks all the time, and that  $K = 0$  only when all  $N$  actors speak in equal proportions.

Mayhew and Levinger then consider "a range of sequence lengths that are operationally relevant to human interaction" (p. 1021). They suggest that the findings of Miller, Simon, and others on the limits of human primary memory are applicable, and that relevant sequence lengths range from five

<sup>1</sup> Mayhew and Levinger permit an actor to follow himself in the sequence structure. This suggests that the description results from some temporal sampling, a process which permits significant sampling error (e.g., a firm no is more likely to be missed than a long-winded equivocation). If the sequence is not a sample, then it is not clear how an actor can follow himself.

to nine events. Mayhew and Levinger fail to show any basis for assuming that human interaction is governed only by primary memory. In footnote 10, pages 1021 and 1022, they state that this short sequence may be a condensed representation of a longer one. This presents a problem, because each event can be characterized only by a dominating actor. It is not possible to represent an event as a tie between two or more actors, although a condensed representation of a longer sequence might require doing so. It is not clear from their presentation whether the coefficient of inequality is proposed as a way in which the actor's "primary memory must operate to visualize power structure" (p. 1022), or a way in which a social scientist can describe the power structure.<sup>2</sup>

Mayhew and Levinger assume that the interaction results from a random process:  $P(i_i | j_{t-1}) = 1/N$ ;  $P(i_i) = 1/N$ . They consider then the ways in which  $K$  behaves under certain conditions and calculate expected values for  $K$  by denumeration.

I contend that it is more fruitful to derive a formula for the expected value of  $K$ :  $E(K) = [\frac{1}{2}N^2E(|p_i - p_j|)]/(N - 1) = \{\frac{1}{2}N^2\sqrt{[2 \text{ var } (p)]}\}/(N - 1)$ . To show that  $E(|p_i - p_j|) = \sqrt{[2 \text{ var } (p)]}$ , consider  $(|p_i - p_j|)^2 = (p_i - p_j)^2 = [(p_i - \mu) - (p_j - \mu)]^2$ , where  $\mu = E(p)$ . Then

$$\begin{aligned} E[(|p_i - p_j|)^2] &= E[(p_i - \mu)^2 - 2(p_i - \mu)(p_j - \mu) + (p_j - \mu)^2] \\ &= E[(p_i - \mu)^2] - 2E[(p_i - \mu)(p_j - \mu)] + E[(p_j - \mu)^2] \\ &= 2 \text{ var } (p) - 2[E(p_i p_j) - \mu E(p_i) - \mu E(p_j) + E(\mu^2)] \\ &= 2 \text{ var } (p) - 2[E(p_i)E(p_j) - \text{cov } (p_i, p_j) - \mu^2]. \end{aligned}$$

Because  $p_i$  is independent of  $p_j$ , the covariance is zero, and the expression becomes

$$\begin{aligned} &= 2 \text{ var } (p) - 2[\mu^2 - 0 - \mu^2] \\ &= 2 \text{ var } (p). \end{aligned}$$

To show that this is the square of the desired expression, it is sufficient to show that  $[E(|p_i - p_j|)]^2 = E[(|p_i - p_j|)^2]$ . As follows:  $[E(|p_i - p_j|)]^2 = E[(|p_i - p_j|)^2] - \text{cov } [(|p_i - p_j|)(|p_i - p_j|)]$ . Again, because the  $p_i$ 's and  $p_j$ 's are independent of each other, the covariance is zero, and the equality is proved.

<sup>2</sup> An anonymous referee of this comment has pointed out the additional problem of variable retention of events. The communication events selected by an observer may not be the same as those retained by each and every participant. As one example suggested by the referee, one participant may be retaining only those events in which he is personally involved, while another is retaining each event in sequences of nine as is assumed by the authors.

This same expression for the expected value of the absolute value of  $(p_i - p_j)$  can be derived using Chebyshev's Inequality.

We can use this expression for the expected value of  $K$  to determine the behavior of  $K$  under varying conditions. Consider any actor  $i$ . The probability that he speaks  $k$  times in the sequence of  $L$  events ( $k \leq L$ ) is distributed binomially with

$$p = \frac{1}{N}$$

$$\mu = \frac{L}{N}$$

$$\sigma^2 = \frac{L(N-1)}{N^2}.$$

Then the probability that he speaks  $(k/L)$  proportion of the time is also distributed binomially with

$$p = \frac{1}{N}$$

$$\mu = \frac{1}{N}$$

$$\sigma^2 = \frac{(N-1)}{LN^2}.$$

This  $\sigma^2$  is the variance in the proportion of time an actor speaks, or  $\text{var}(p)$ . Then the expected value of  $K$  equals

$$\begin{aligned} E(K) &= \frac{\frac{1}{2}N^2\sqrt{2(N-1)/LN^2}}{(N-1)} \\ &= \frac{N}{\sqrt{2(N-1)L}}. \end{aligned}$$

To prove Mayhew and Levinger's theorem 1, it is necessary only to take the first derivative of the above expression with respect to  $L$ :  $dE(K)/dL = -N/2L\sqrt{2(N-1)L}$ , which is negative for all  $N$  and  $L$  greater than 1. By taking the second derivative, it can be shown that the first derivative is increasing. In the limit, as  $L$  becomes exceedingly large,  $E(K)$  approaches zero.

Mayhew and Levinger correctly show that, for  $L$  less than  $N$ , the minimum value for  $K$  is an increasing function of  $N$  because not everyone can speak.  $K_{\min} = (N-L)/(N-1)$ . If a group were characterized by a certain  $K_{\min}$  at some point in time, and if the size of the group grew and the speaking

opportunities did not increase, the group would of necessity become less egalitarian.

$$\lim_{N \rightarrow \infty} K_{\min} = 1.$$

This is sufficient to prove a revised theorem 3: As group size increases without bound and  $L$  remains constant, the expected concentration of power approaches its maximum.

Since this result depends on  $N$  being much greater than  $L$ , one can question the extent to which it describes situations that are of interest and concern to sociologists. A more interesting question to ask is: if  $N$  increases by some proportion, how much must  $L$  increase in order to maintain the same expected value of  $K$ ? It can be shown that  $L$  must be increased by slightly more than the same proportion in order to maintain the same expected value.

To prove theorem 2, Mayhew and Levinger reason from the increasing minimum values of  $K$ . More properly, we need to consider the derivative of the expected value of  $K$  with respect to  $N$ :  $dE(K)/dN = [\sqrt{(N-1)} - N/2\sqrt{(N-1)}]/\sqrt{(2L)(N-1)}$ . The sign of the derivative will be determined by the numerator of the term in the brackets. This expression is positive when  $\sqrt{(N-1)} > [N/2\sqrt{(N-1)}]$ ,  $N > 2$ . So, for all  $N > 2$  the expected concentration of power is an increasing function of group size.

Mayhew and Levinger define the ruling component of a group as that proportion,  $R = n/N$ , composed of the  $n$  actors who control an event. They then support theorem 4 by reasoning from the maximum values of  $R$ :  $R_{\max} = L/N$  for  $L \leq N$ .

A more proper proof of theorem 4 (Mayhew's restatement of Mosca's proposition), and one that includes a proof of theorem 5, is as follows: The  $L$  speaking events will be distributed among the  $N$  actors by a Poisson process (see Feller 1968, pp. 160-61). The expected number of events per actor is  $L/N$ . In the Poisson distribution,  $\lambda = L/N$ . We can divide the  $N$  actors into  $n$  members of the ruling component and  $m$  actors who control no event:  $n = N - m$ . To find an expression for the expected size of the ruling component, it is sufficient to find a formula for the expected size of the silent majority:  $E(n) = N - E(m)$ . According to the Poisson distribution,

$$\begin{aligned} E(m) &= N p(0; L/N) \\ &= N e^{-L/N}, \end{aligned}$$

$$E(n) = N(1 - e^{-L/N}).$$

To determine the effect of increasing group size on the size of the ruling component, we need only take the first derivative of  $E(n)$  with respect to  $N$ :  $dE(n)/dN = (1 - e^{-L/N}) - (L/N)e^{-L/N}$ . This is positive if

$$\begin{aligned}(1 - e^{-L/N}) &> \frac{L}{N} e^{-L/N} \\ e^{L/N} &> 1 + \frac{L}{N} \\ \frac{L}{N} &> \ln \left( 1 + \frac{L}{N} \right).\end{aligned}$$

Using the Taylor expansion of the natural logarithm (Feller 1968, p. 51), the right-hand side of the above expression can be shown to be less than the left side for all  $L \leq N$ .

This result is sufficient to prove theorem 5. As  $n$  goes to  $L$ ,  $\text{var}(p)$  goes to zero and  $E(K)$  goes to zero.

To prove theorem 4 we need to consider the first derivative of  $R$ :

$$\begin{aligned}E(R) &= \frac{E(n)}{N} \\ \frac{dE(R)}{dN} &= \frac{N \frac{dE(n)}{dN} - E(n)}{N^2} \\ &= \frac{\frac{dE(n)}{dN}}{N} - \frac{(1 - e^{-L/N})}{N}.\end{aligned}$$

For the derivative to be negative it is sufficient that

$$\begin{aligned}(1 - e^{-L/N}) - \frac{L}{N} e^{-L/N} &< (1 - e^{-L/N}) \\ e^{-L/N} &> 0,\end{aligned}$$

which is true for all  $L$  and  $N$  greater than 1.

Finally, if we want to know the probabilistic size tipping point for a given  $L$ ,  $L < N$ , it can be determined by setting

$$\begin{aligned}E(R) &= \frac{1}{2} \\ E(R) &= \frac{E(n)}{N} = \frac{1}{2} \\ (1 - e^{-L/N}) &= \frac{1}{2} \\ N &= \frac{L}{\ln 2} \\ &\cong 1.44L.\end{aligned}$$

The deterministic size tipping point is  $N = 2L + 1$ .



The point of this comment is not that the results of Mayhew and Levinger are wrong. They are basically correct. I have tried to show that they can be stated more precisely and proven more generally than the techniques of denumeration and computation permit. This should allow more exacting tests of the predictions of the theoretical process. I leave it to others to take up the question of the appropriateness of the conceptualization.

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#### REFERENCE

Feller, William. 1968. *An Introduction to Probability Theory and Its Applications*. New York: Wiley.

#### COMMENT ON RALPH TURNER'S "THE REAL SELF: FROM INSTITUTION TO IMPULSE"

I am neither a disinterested nor an objective reader of Professor Turner's paper (*AJS* 81 [March 1976]: 989-1016). I read it through the lens of my own experience and the filter of the abstract content of the cognitive structures which seem a comfortable representation of that experience. When new experience is powerful enough to threaten the structural frames of my vision, I tighten or elaborate the frame so as to either exclude or assimilate the experience. Only when I feel particularly strong do I reflect on the adequacy of the information-processing structure itself. That is why I admire Turner's courage in admitting that a basic sociological framework (although he does not identify it as his own) is unable to assimilate a new set of experiences and in suggesting that we need alternative theories or, at least, important revisions of existing ones.

This basic sociological framework is that of moral integration. Social order is possible because individuals share moral commitments which are enacted as conformity to the role prescriptions embedded in social institutions. The new set of experiences which makes this social practice and theory problematic results from the fact that more people, especially younger ones, in the United States seem to locate their "real selves," the core of their self-definitions, in the satisfaction of "noninstitutional impulses." This newer locus of self-definition deflects from the perception of institutionalized values and conformity to them as the criterion of self-validation and adequacy, thereby making social control increasingly problematic.

Turner offers a number of examples in his effort to differentiate between the two loci of self-definition, the "institutional self" and the "impulsive self," and then describes several theories which might be developed in order to explain his perception that there has been a historical shift in the United States during the "past several decades" from an institutional real self to an impulsive real self. However, despite his intellectual openness, I think that Turner's description of the shift and his understanding of its social sources and consequences is limited by his continued use of the very framework which he believes to be inadequate. The use of this framework is evidenced first by the formulation of the problem itself—that a shift in the locus of self-anchorage be posed as a problem of social control. Although concern with social control is not limited to the moral-integration model, it has traditionally been its central practical and theoretical "interest." Second, the moral integration model poses a dichotomy between society and its needs and the individual and his needs. I think that Turner fundamentally recapitulates this dichotomy, even while observing that it is possible to see some social and individual aspects in both types of self-definitions. The important locus of continuity with moral integration theory, however, is in the historical abstraction of two clusters of concrete human commitments, which are then reified as representing "society" and "individual." By moving his analysis from the level of values and norms to that of self-definitions, Turner goes beyond the typical moral integration view but, on the whole, perpetuates the dichotomy. Rather than identifying one set of concrete commitments and self-definitions as "institutional," and seeing another set of commitments as "impulsive" challenges to the social order, we might instead deabstract or further ground the institutional self in historical society. For example, I think that a strong case could be made that the components of institutional self-anchorage, which now seem so absolute that it is easy to slide into identifying them with society, were themselves once part of a broad set of social structural and self-definitional changes which appeared to threaten society (which Turner recognizes but does not develop). The characteristics of the institutional self seem to me remarkably similar to the virtues of the rising bourgeoisie, especially when abstractions like "volition," "achievement," "morality," and "altruism" are seen in terms of their constituent institutional behaviors. Viewed concretely, they represent the self-definitions of the "free-market" individual and the historically developed loyalties to occupational specialization and nuclear family. In short, by moving dangerously close to the reified society-individual dichotomy, called here "institution-impulsive," and by deemphasizing the historical concreteness and social structural connectedness of self-definitions, which he does allude to, Turner increases the difficulty of achieving one of his major purposes: "the articulation of real selves with social structure." The attainment of this aim is made even more

- difficult by another direction of analysis, which is also typical of the moral integration model. Although Turner assumes that "self-conception . . . is most usefully viewed as a variable intervening between some aspect of social structure and the working of the same or another aspect" (p. 990), I do not believe that he has specified the structural sources of changed self-definition, or that he has given a fair representation of those aspects of social structure which might be affected by changed self-definitions. Specifically, there is a relative neglect of the social structure of production and an overemphasis on role definitions, sentiments, values and norms, and ritual. This emphasis is reminiscent of the tendency of proponents of the moral-integration model to analyze society primarily in terms of morality, ideas, and conceptions. I think that continuing this tradition makes the articulation of the relationship between self-definition and social structure more difficult and hinders the effort to develop alternative theories of social control.

Similarly, it is difficult to describe a complex and changing set of specific interactions between aspects of social structure and self-definitions when self is reified and seen as an abstraction that stands outside of the organization of interactional networks constituting social structure. A dichotomy which usefully clarifies the distinctiveness of self and social structure may, simultaneously, so far separate the two concepts that the possibilities of seeing their changing and mediating linkages are diminished. Clearly, this is not Turner's intention, for he writes that ". . . few of the instigations and sensations that people experience as impulse are not institutionally conditioned and generated" (p. 1012). Yet, the particular set of self-anchors to be explained, the impulsive self, is seen as outside of society or, more precisely though metaphorically, as a player, waiting in the wings, who can appear on stage only when the play breaks down (the "lowered inhibitions" of the repressed "impulses," "mad desire") or has been fully enacted. When Turner does discuss social structure in terms of production and exchange relationships it is only after production problems are routinized or "resolved" that the "impulsive self" appears. Social relations can influence the impulsive self as a trigger or catalyst, but its apparently static core consists of "deep, unsocialized, inner impulses." (This characterization seems to belong both to the impulsive actor and the objective analyst.)

I believe that the impulsive self like the institutional self can be re-grounded in historical social relations rather than abstracted from them and reified. There is no more reason to see the specific characteristics of the impulsive self—spontaneous action, self-discovery, decreased "self-control," expression of "human frailties," distrust of rules which appear arbitrary—as signifying the breakout of an ahistorical self, than there is to see the characteristics of the institutional self as being society. To some

extent, all these behaviors are rooted in the capacities of the organism, and all are subject to social construction. Then, I think it becomes somewhat easier to see self-anchorage more fully as a constituent of social process.

Turner, does, I think, offer a number of stimulating insights into how this can be accomplished. He criticizes a cultural explanation for the shift of self-anchorage because "... it accounts for a decline in the institutional locus of self without indicating the basis for increasing impulse locus" (p. 1001). He observes that "if modern civilization had also frustrated mankind's need for interpersonal response, it is easy to understand that people may experience their longings for intimacy as manifestations of their real selves" (pp. 1003-4). He notes that "one key [to understanding changes in self-conception] may be the shift from the organization of group life around production and mutual protection groups to organization around consumption" (p. 1002), and, finally, that "... modern society is not so much repressive as it is contradictory, stimulating to an unparalleled degree the impulses whose expression is then inhibited" (p. 1004).

By elaborating these insights, I think we can sketch the outlines of an alternative model. Specifically, I would suggest that the impulsive self can be understood as the expression of a newer set of needs, which are related to changes in the organization of production and class structure. The revolutionary appearance of these needs and self-definitions may, as Turner observes, obscure their ascendance and incorporation into the societal structure of control. However, it is particularly difficult to envision this because, as Turner describes it, the impulsive self seems so much directed toward individual self-expression and so abstracted from, and even antithetical to, any form of social organization at all. However, the impulsive self can be socially reanchored, I think, both by the sociologist and by the social actor. By emphasizing changes in the social structural context of changing self-definition, one could argue not only that the impulsive self might some day be socially tamed, but also that the impulsive self now represents both new needs *and* a form of moral consensus or institutional loyalty at the level of self-definition. In other words, *the impulsive self is not a challenge to social control. It is rather the expression of a different mode of social control.*

I agree that it is very difficult for both the social actor and the social analyst to see the impulsive self as connected to social structure and, even further, as a process of social control. But that is precisely because of the form which social production increasingly takes in advanced capitalism; and the difficulty of seeing highly individualized needs with an enormous stress on self-gratification as an aspect of social control is indeed one of the major socially patterned defenses for the maintenance of the current system.

I think that this apparently contradictory process can be better compre-

hended by an analysis which begins with the tradition of "commodity fetishism" (Marx 1967; Lukacs 1971; Marcuse 1964; Gorz 1964) rather than with the moral integration approach. According to this model, lacking direct control of their means of production and conscious participation in a transparent social regulation of production and distribution, individuals see their own and others' products as alien objects which they must acquire for survival. Losing sight of the process by which their own capacities are in fact appropriated and transformed into commodities, they accept the capitalist market model of individual accumulation. In this way the grounding of social production in the exercise of human capacities through social relationships is obscured, so that finally individuals see themselves, their needs, and self-definitions increasingly in terms of consumption, with the result that they abandon efforts to control the expression of their capacities in the process of production. Thus, social control occurs through a process of the mystification and reification of relations of production. The stability of social organization is insured not by moral consensus or institutional loyalty, but instead by a rechanneling of individual energies and awarenesses toward activities that are less determinant of social structure and in a way which individualizes people's definitions of social organization and fragments their capacities for active, collective control of some of their most central activities. In other words, I am suggesting that social control now occurs increasingly less through moral concentration and commitment to social institutions and more through a process of social *diffusion*, in which extreme "*individual-ization*" rather than "*social-ization*" creates social stability. From this point of view, the emphasis on self-gratification is precisely that which does not threaten the social order, as long as it is directed away from the social organization of production.

Of course, this is a very general formulation, and one can imagine, for example, concrete situations in which a lack of synchronization between consumption demands and production resources might become socially disruptive. Also, in its early stages, the expression of the "revolutionary" demands of the impulsive self may stir things up so much and lead to such a questioning of existing legitimations that the social relations which support and encourage the impulsive self may themselves enter the realm of the problematic. For the present, however, I think that what Turner calls the impulsive self is not revolutionary but fits into the existing social totality rather well. Let me offer some nonsystematic and brief examples of how the impulsive self fits into the overall social organization of production both as a set of new needs and as a process of social control.

It might be argued that the desires for "self-discovery," "spontaneity," and "lowered inhibitions" represent changed needs of production, both for the ruling class and the increasingly educated, technologically employed

working class. As the earlier stages of broad capital expansion and empire building come to be replaced by the greater elaboration and intensification of capital and the use of more limited resources, the importance of innovation increases, and the ruling class takes on more characteristics of "foxes" than of "lions." In modern terms, I think that the requirements of innovation under these circumstances support a different kind of psychological mobilization, a digging deep into different aspects of the self for competitive solutions and discoveries. Similarly, spontaneity might be related to the production need for quicker turnaround times and immediate feedback. Lowered inhibitions might be thought of as a "loosening up," a generalized preface to a more total, more intensive use of the self for capital accumulation. These needs and self-definitions, it might be argued, become more widespread not simply as the legitimation of ruling class needs, but also because of the changing job requirements of workers. This generalization of needs and, ultimately, self-definitions, like the increasing material consumption standards of workers, is permitted and even encouraged, because it, too, ultimately increases production and the accumulation of capital. Also, as Turner notes, the impulsive self-definition may be related to consumption—as a way of intensifying the interest and ability of individuals to consume, an intensification of individual consumption which serves as a complement and, when necessary, as an alternative to continuously expanding external markets.

While these newer needs and definitions of the impulsive self might be utilized in production as well as in consumption, its social control aspect lies in commodity fetishism. I mean by this that social actors come to focus on these aspects of the self in terms of consumption, making even their partial utilization in production less apparent, and that their mobilization in consumption occurs in a way that saps their revolutionary potential. The impulsive self represents a standardized commodity form of those very same new capacities used in production, a form which renders their creative potential invisible to the individual by representing social relational capacities of production as individual characteristics, which can only be realized through increased *individual* consumption and not through the social relations of production themselves. For example, I see the need for "making intimate self-revelations" as a distorted, stylized form of the capacity for human communication and attachment, a capacity which is highly controlled and frustrated in production, but is now realizable as the expression of a socially abstracted individual. Similarly, I understand the desire for spontaneity as a distorted, individualized commodification of the human capacity for exercising freedom in social relationships. In this way, the impulsive self does not express noninstitutionalized human capacities or even "impulses" rooted in the potential of the organism, but signifies instead the appropriation of these capacities to serve socially

manageable needs and self-definitions. It is not, therefore, the expression of these appropriated, individualized needs and self-definitions which most threatens the preservation of the status quo. Rather, it is the realization in social relationships of the capacities on which they are based which would most unsettle not society in general but the organization of this particular society. This commodification and individualization of needs does not provide for eternal social control, for I do not think that the contradictions which I have mentioned can be simply resolved by "logical" argument. For example, while production may increasingly require the utilization of different kinds of human capacities, these very same capacities are frustrated by the social organization of production and are instead realized primarily through fetishized individual consumption outside the productive sphere. While the impulsive self may be disruptive of existing institutional legitimations and generate insatiable and disruptive consumption-oriented self-identities, it does provide a mechanism for social control which gives the appearance of individual freedom from social constraint.

Thus, I agree with Turner that "... if people recognize their real selves in impulse, they become susceptible to social control from that quarter" (p. 1011). I have tried to indicate very briefly how a major historical shift in self-anchorage might be related to changes in the broader social context and how that shift can be understood by emphasizing an alternative mode of social control. This model, which relates capacities and needs both to changing forms of production and to changing loci of self-definition, obviously requires a great deal more elaboration and specification. Eventually, I hope to be able to specify the linkages and transformations of historically specific expressions of human capacities, their appropriation into the dominant, changing forms of production, their early self-representation (perhaps as impulses) and their later institutionalization and social legitimation. I agree with Turner both that "... people are not just miniature reproductions of their societies" (p. 989), and that the relationship of particular aspects of the self to "... recognized institutional structures will be complex and indirect" (p. 1011). But I do think that the "self" is an integral part of the historically changing forms of social production.

Finally, I want to emphasize the fact that while we might understand social control from this point of view—one which emphasizes that the production of commodities and the extensive commodification of the producers themselves rather than the maintenance of moral conformity form the central social dynamic of contemporary American society—"social control" is neither the theoretical nor the practical interest of this approach. On the contrary, I think that we are now doing all too well in the area of social control by utilizing a combination of the internalization of older institutional loyalties and an individualized commodification of newer needs and self-definitions. What "we need," I believe, is not so much more effective

social control, and a theoretical guide for achieving it, as a satisfaction and realization of human capacities. The theoretical and empirical task of a critical social psychology is to describe better how our current forms of social organization prevent the satisfaction and realization of human capacities and to show how society can be organized so as to maximize the realization of the human capacities of all its members. What we need then, most of all, is not a new theory of social control, but a theory of social liberation; a theory which appreciates, both critically and practically, the centrality of psychological bondage in this society and which acknowledges that liberation requires the recognition of human relational capacities as a constituent in the social process and as a social goal.

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#### REFERENCES

- Gorz, Andre. 1964. *Strategy for Labor*. Boston: Beacon.  
Lukács, Georg. 1971. *History and Class Consciousness*. Cambridge, Mass.: M.I.T. Press.  
Marcuse, Herbert. 1964. *One Dimensional Man*. Boston: Beacon.  
Marx, Karl. 1967. *Capital*. Vol. 1. New York: International Publishers.

#### REPLY TO PHILIP WEXLER

Philip Wexler's thoughtful exposition is a welcome addition to discussion of the changing anchorage of self-conceptions. It is altogether consistent with the inductive and tentative spirit of the original article that additional explanations should be advanced. Without denigrating Wexler's contribution I should like to highlight what I think are the major issues on which our viewpoints diverge.

1. Wexler's assumption that I suppose the impulse self actually to be based on deep, unsocialized, inner impulses is a serious misreading. I had hoped to make clear the view that the impulse self is just as fully a social product as the institutional self and that impulsives are engaged in self-deception when they see themselves as freer and more spontaneous than institutionals. It is in this connection that sociology's most widely heralded theories of social control show clearly how an institutional self-conception subjects one to control but are less helpful in showing how an impulsive self-conception can do similarly.

2. Wexler proceeds on the unwarranted assumption that my interest in the social control implications of self-conception serves the goal of developing a prescription for more effective social control. In the liberal tra-



dition of Karl Mannheim, the Chicago School, and mainstream Anglo-American sociology, the desire to expose the dynamics of social control reveals an ambivalence toward, or even abhorrence of, social control. I am of the conviction that one of sociology's most important contributions can be the exposure of the hidden constraints that compromise our freedom.

3. In the repeated references to "moral-integration" theory and ahistoricity I sense a determined effort to reshape my views until they fit the Procrustean bed that Wexler has prepared for the occasion. I do not find these polarities useful in distinguishing my approach from others. Part of the difficulty seems to arise from failure to appreciate an analytic strategy that identifies both immediate and removed causes for the configuration of the self.

4. I believe there is a significant contrast between the naturalistic perspective in the original paper and the teleological perspective in some portions of Wexler's analysis. The conspiratorial functionalism that Wexler employs is more credible than the unconscious-system-wisdom brand of functionalism. But it still requires too monolithic a view of societal power structure and too godlike an omniscience on the part of the ruling classes about what psychological dispositions will serve their ends and how these dispositions are instilled.

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## Review Essay: The Once and Future Marx

*The Twilight of Capitalism.* By Michael Harrington. New York: Simon & Schuster, 1976. Pp. 446. \$10.95.

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Michael Harrington begins *The Twilight of Capitalism* with the startling premise that Paul Samuelson, Joan Robinson, Louis Althusser, Erich Fromm, Hannah Arendt, Raymond Aron, and I, in one way or another, have misinterpreted, misunderstood, and even misquoted Marx and that he will present not just a possibly better or more comprehensive reading but, to quote him, the "authentic Marx," the "real Marx" (and presumably, then, the only rational Marx), known hitherto only to a gnostic "underground" (his word again) but whose second coming is at hand, since the resurrection of the old scrolls is now complete.

This is surely an extraordinary claim. How could so many well-known and even distinguished scholars mislead themselves and thus their readers? It turns out on closer examination that Harrington believes the real culprits were Marx and Engels themselves:

a) In *The German Ideology*, Marx and Engels committed a "youthful indiscretion" (Harrington's phrase) in seeking a universal key to human history, which "they never formally retracted," though in later writings they sought to relate sociological generalizations only to the stage of development of the society. "Youthful indiscretion" it may have been, but Engels maintained the idea of a universal key even in his speech at the grave of Marx, comparing Marx's findings with those of Darwin.

b) Marx himself contributed to the misunderstandings by his *Forward* [sic] to the *Critique of Political Economy*, "perhaps the best known, and certainly the most unfortunate, statement of what Marxism is [which] even a sophisticated scholar like C. Wright Mills [put] first in his anthology of Marxist writings." The *Forward*, of course, set forth the famous statement that "the mode of production determines the social, political and spiritual life processes in general." In this form, it is the foundation of a view of society as consisting of a substructure and a superstructure. It is "the very essence of vulgar Marxism; it is also the ideological foundation of Stalinism," writes Harrington (p. 37).

Then "why did Marx do such a disservice to his thought?" This was the period when Marx had been wrestling with the problem of finding the key to the capitalist system; in the preceding two years he had written a thousand pages of notes and commentaries (recently published as the *Grundrisse* [Marx 1973]. "One explanation, then, is that the *Forward*

is the kind of oversimplification even a genius might write when confronted with the problem of summarizing extremely complicated material." In this context, concludes Harrington (faith moves mountains), "The 1859 statement would be subsumed under the famous rule, 'Ever Homer nods'" (p. 41). But then why publish the *Forward*, when he had not published the *Economic-Philosophical Manuscripts*, *The German Ideology*, and the *Grundrisse*, more than 2,000 pages, before?

c) But the real culprit is Friedrich Engels, "the lifelong friend and colleague of Marx, who shared in his intellectual development." He is "the second great figure in the Marxist misunderstanding of Marxism." Marx "was unjust to his ideas in a few passages; Engels did much more consistent harm to his mentor's theory although he sometimes was its shrewdest interpreter. He was the inventor of an omniscient theory of society and nature, called *dialectical materialism*, which is not to be found, even as a momentary indiscretion, in the writings of Marx" (p. 42).

Engels's presentation of Marx's views—the first comprehensive codification to be published—appeared in *Anti-Dühring* in 1876–78. But now the mystery deepens. Not only did Marx read the entire manuscript; he also contributed to it: the tenth chapter of part 3, entitled "From the Critical History," was written entirely by Marx. And Engels noted specifically, "The mode of outlook expounded in this book was founded and developed in far greater measure by Marx, and only in an insignificant degree by myself."

But if this book was a travesty—and the quixotic fact is that the entire first generation of Marxist writers, Plekhanov, Lenin, Bernstein, and Kautsky, were instructed by it; and the extract taken from it and published as a pamphlet, "Socialism, Utopian and Scientific," was circulated as widely as the *Communist Manifesto* and became the textbook for all Marxist schools—why did Marx allow it?

*Anti-Dühring* began as a polemic against a rival of Marx, a popular academic figure, Eugen Dühring, so Harrington concludes that "the result, if I am right, was that Marx tolerated a kind of intellectual double standard, allowing his factional partner the rhetorical luxury of imprecisions and sweeping generalities, which he himself would never tolerate in his own scientific work." Besides, "Marx allowed Engels to exaggerate because he felt that was necessary in a factional struggle which involved many uneducated people" (p. 42).

How remarkable! What is one to say of Marx's preface to *Capital*, of the "laws of motion," the "natural laws of capitalist production," of "these laws themselves, of these tendencies working with iron necessity towards inevitable results" (Marx 1906, p. 13)? Or of Marx's characterization of Kant in *The German Ideology* as the "whitewashing spokesman" of the German burghers (Marx [1867, 1885–94] 1965, p. 209), or any dozen other sweeping, imprecise, and "factional" statements in *his* scientific work?

Actually, in his crude attempt to "whitewash" Marx, Harrington is unfair to Marx and to the genuine intellectual questions he wrestled with all his life, which led him often, even if understandably, to vulgar statements as well as to different and more complex formulations. Like all of us to this day, Marx was seeking to resolve a number of inherently irreconcilable dilemmas in the epistemology and sociology of the social sciences. Schematically, the contradictions are

1. an activity theory of knowledge versus a copy theory;
2. voluntarism, according to which men make their own history, versus structural constraints or mechanistic determinism;
3. human nature seen as an essence (*wesen*) versus human nature seen as recreated by history;
4. class role and persona of persons as against diverse individual motivations, and the mechanisms that mediate between the two concepts;
5. the "logic of history" versus moral condemnation of inhumanities;
6. scientific inquiry as either theoretical or historical, for it cannot be both simultaneously; thus one has either a logical explanation through a conceptual prism or an empirical explanation seeking to identify actual sequences;
7. a general theory of "society" and its determining mode (or even "functional requisites") versus a historicist theory of specific, qualitatively different social formations.

Clearly I do not have the space to elaborate upon these, but in reading Marx (not just Engels) one can find him, at one time or another, espousing (at different times) *both* sides of nearly all the polar opposites listed above, and one cannot explain that by using the word "dialectical" since that word explains everything. An activity theory of knowledge, which we find in the *Theses on Feuerbach*, sees man as an active agent in history, but this view risks accusations of idealism, as Lukács found out when he was forced in Moscow to recant the *History and Class Consciousness*. A copy theory of knowledge, which we find in *Anti-Dühring* (and later in Lenin's *Materialism and Empirio-Criticism*), is more positivist and scientific, but to introduce a theory of change, one has to posit the absurd argument that matter moves dialectically. Given his early Hegelianism, why should Marx have endorsed *Anti-Dühring*? In the *Economic-Philosophical Manuscripts*, Marx talks of man as having an essence. But in *The German Ideology*, he defines man by his history. Yet if, as Marx states in *Capital*, in achieving new powers man changes his nature, then human nature in ancient Greece must have been significantly different from human nature under modern capitalism, in which man's powers are so much greater. And if this is so, how is it possible, as Sidney Hook asked long ago in his article on materialism in the original *Encyclopedia of Social Sciences*, to understand past historical experience in the same way we understand our own, since understanding presupposes some invariant categories? Marx scorned the idea of "timeless truths" (see the vicious discussions of Stirner in *The German Ideology*); yet if we accept, with Kojeve, Marcuse, and

Lukács, the "logic of history," where is the right to pronounce absolute moral judgments, as on Stalin?

On almost all these issues, Marx was "inconsistent," and it is this inconsistency which allows so many individuals to construct their "own" Marx. Moreover, Marx "finished" only one major scientific work in his lifetime, volume 1 of *Capital*. The works before 1848 were slashing, vitriolic attacks on Bauer, Stirner (occupying 374 of 632 pages of *The German Ideology*), Proudhon, Ruge, et al. Of *Capital*, volume 1 appeared in a German edition in 1867, but Marx was still unhappy with the work; when a French edition appeared in several parts from 1872 to 1875, it bore the note "entirely revised by the author." As late as 1881, two years before his death, Marx told Kautsky that little of the remaining work was ready for publication, because it lacked internal cohesion; the task of sorting and arranging the order of the remaining inchoate manuscripts fell to Engels (for *Capital*) and Kautsky (for the *Theories of Surplus Value*).

The point is that on no single theme associated with Marx's name—historical materialism, class, the crises of capitalism—is there a single unambiguous definition of a concept. Marx never used the phrase "historical materialism" (it was coined by Engels; Engels never used the phrase "dialectical materialism," which was invented by Plekhanov); and the famous statement that it is not the consciousness of men that determines their existence but their existence that determines their consciousness is vague, mechanistic, and even contradictory. "Class" is defined variously: in relation to property (the proletariat being defined as the propertyless in the *Critique of Hegel's Philosophy of Right* and in *The German Ideology*); in terms of political consciousness (the *an sich* passages in the *Poverty of Philosophy*); in terms of political interests (in *The 18th Brumaire*); according to positions in the mode of production (*The Communist Manifesto* and *Capital*); and in relation to the source of income, in the incomplete fragment which ends volume 3 of *Capital* (and which Dahrendorf sought to complete by piecing together other sections in his *Class and Class Conflict in Industrial Society*). There are three different theories of crises of capitalism: an underconsumption theory; a theory of disproportions between the growth of producer-goods and consumer-goods sectors; and a theory of the tendency of the falling rate of profit, as a result of the change in the organic composition of capital. It is no accident that, as Charles Frankel has remarked, it is not Marxism that creates radicalism; each new radical generation creates its own Marx.

Harrington wants to correct the "vulgar Marxists" who see society in terms of a substructure and superstructure and see the politics and culture of a society as always "determined" by the economic elements or even the mode of production itself. Society is an "organic whole," "in which the economic, political and social interact reciprocally upon one another," but this "leaves room for relative autonomies. Art, science and

politics all have their own rhythms," though "production predominates within the organic whole"; and the "idea of a reciprocally interacting causation, which is so central to the Marxist method," is "thus pertinent to computerized sociology as well as to Hegelian philosophy." This is the "first step toward methodology that can help in the understanding of the late twentieth century. In short, the new Karl Marx, announced in the first chapter and contradicted by the familiar Karl Marx in the second, now begins to emerge in his own right." Thus, "When one conceptualizes society as an organic whole in which the economic, the political, the sociological and the cultural so interpenetrate one another they cannot be explained in and of themselves, then there is no room for a completely independent discipline of economics or political science or sociology or aesthetics."

One rubs one's eyes in astonishment. This is like saying that, if one sees "nature whole," there is no possibility of independent disciplines such as physics, chemistry, geology, astronomy, or the like. But the real confusion is compounded because Harrington nowhere defines what he means by "society" or what are its boundaries in space and time. If one talks, as Harrington does, of "capitalist society," are prewar and postwar Japan; the Weimar, Nazi, and Federal Republics of Germany; and the United States all part of an "organic whole"? One can say that a "socio-economic formation" such as capitalism has a coherent conceptual consistency, but if the political and cultural are "relatively autonomous" (as Harrington also says), what is the "organic whole"?

Harrington is confusing a "system" with a "society." Any system has mutually interacting elements, and capitalism as a socioeconomic system (e.g., commodity production) is an aspect of these different societies; but the political systems are largely at variance because they do not derive from the socioeconomic. And the different components such as the technological and the cultural have completely different historical rhythms; so again, what is "organic"?

One can say that the idea of an "organic whole" is a conceptual, not a historical or empirical, construct. But if it is conceptual, does it exhaust the totality of social reality? The ideas of the "mode of production" and of "socio-economic formations" are very powerful constructs. But so are Hegel's "moments" of cultural consciousness or Weber's "modes of domination," and if one uses these different conceptual prisms, there is no exact overlay that makes them coterminous within historical time.

The central dilemma for Marx was that he thought the "mode of production" (a conceptual abstraction) *constitutive* of society, as Darwin's theory of evolution was constitutive of biological development or Newton's laws of motion constitutive of the universe. Harrington writes that for Marx "economics is, by its very definition, a bourgeois discipline." This is not so. For Marx—and this was the rock of his belief—economics was the *material embodiment* of philosophy, which is why he could stand

Hegel on his feet. The "realization of philosophy"—the overcoming of the ontological dualities of subject and object, spirit and matter, etc.—was naturalized by Marx into the overcoming of the social dualities—the division of labor into mental and physical, town and country. That is why communism was for Marx the "realization of economics," meaning its abolition, by the overcoming of *necessity* (i.e., scarcity) and the entry into the "kingdom of freedom." Marx, like Hegel, did believe in a "logic of history" (and the *Begriff* became the "modes of production"), and this remains the permanent utopianism in Marxism.

Harrington's second effort to provide a "new Marx" is to rehabilitate the "law of value" against its economic despisers such as Paul Samuelson. But if the first effort is highly focused, the second has no focus at all. It is quite evident that Marx's idea of value is independent of price, because he sought a system of constants in which, to use the technical jargon, microeconomics (the individual decisions of buyers and sellers) could be aggregated into a macroeconomic, or system, model. Harrington seems to be completely unaware of that problem. His discussion of the law of value repeats the motif of soapbox oratory that, when a worker works an eight-hour day, some hours are "gratis" or surplus value; his central point is that, since the system is unplanned, there is bound to be a cycle of boom and bust. (How planners would know what the people want, without markets, remains undiscussed.)

Harrington spends much time on the so-called transformation problem—how values become converted into market prices—yet seems totally unaware of the question of aggregation. And the crux of that issue is whether capitalism necessarily has to break down. About the one theory of Marx that does lead to the idea of breakdown—that of the tendency of the rate of profit to fall—Harrington agrees with Samuelson that it is not central to Marx. (Parenthetically, an entire new school of young Marxist economists, English and American, argue that it *is* central; and one of them, David Yaffe—whose work, according to Andrew Gamble and Paul Walton, is "the most authoritative reading of Marx at present available"—argues that "abandoning the organic composition of capital argument is to reject Marx's whole value analysis, which leaves Marxism reduced to Ricardian economics plus crude facile empiricism" [Gamble and Walton 1976, p. 142].)<sup>1</sup>

<sup>1</sup> This quotation is a characterization of Yaffe's argument by Gamble and Walton, not directly from Yaffe himself. Earlier two other Marxian economists, Andrew Glyn and Bob Sutcliffe, had written a book (1972) which argued that the decline in British capitalism is due to the falling rate of profit. But they were disputed in part by Gamble and Walton, who, agreeing with their conclusion, claimed that it had been derived from an inadequate premise, namely, a simplified Ricardian model of value. Yet Braun (1976) claims "that a certain confusion reigns between the meaning of the word 'value,' as used by Marx in different parts of *Capital*, and as used by Ricardo in his *Principles*." He claims that the definition of the word "value" is "not at all important in the general theory of Marx about the capitalist mode of production" or in a theory of prices of production where "Marx tries incorrectly to derive prices of production from val-

On the other hand, Michio Morishima, one of the most respected economic theorists in the field, shows that Marx did solve the "transformation problem" but dealt inadequately with the aggregation question because his algebra and mathematics were inadequate. Building on Marx, however, Morishima grafts the labor theory of value onto a von Neumann general equilibrium model in order to construct an aggregation or macro-economic model. This model could then be used as the basis for a new growth theory that can accommodate substitution and choice of alternative techniques, which had been stumbling blocks in Marxist theory (Morishima 1973, esp. introduction and chap. 14).

I cannot mediate the argument. The point I want to make is that Harrington's exposition is a cheat. It pretends to discuss the "law of value" but ignores the entire technical literature on the problem, from its comprehensive exposition in Paul Sweezy's *Theory of Capitalist Development* (reformulating Bortkewicz) down to the profuse literature of the present day.

The same cheat is repeated on a more elaborate scale in part 2 of the book. In a chapter entitled "Introduction to a Secret History," Harrington claims, "It is the argument of Part II of this book that it was and is the structure of capitalist society that turned the historical accidents of the 1970s into calamitous necessities." But nowhere does Harrington employ, in coherent or more than offhand remarks, any of the Marxian tools or any of the specific theories of crises in order to explain the situation of the 1970s; he merely states repeatedly that the unplanned nature of capitalism leads to crises. Most of the chapters are taken up with polemics seeking to show that the United States government has intervened more directly to help corporations than other social groups, that inequality has not been substantially reduced, that the neo-conservatives are wrong in their judgments about the welfare state, and so on. All of these points are debatable, but I do not want to be deflected from the central question, which is, What specifically does this "new Marx" tell us about contemporary society that is genuinely new? The answer is nothing.

In the one effort to deal theoretically with the question of the 1970s, Harrington relies briefly on James O'Connor's *Fiscal Crisis of the State*, whose argument is not at all congruent with the "law of value." The heart of the "law of value" argument is that *competition* between capitalists would lead to the elimination of the inefficient, that the increasing substitution of machinery for labor would lead to more intense exploitation to overcome the shrinking base of labor, and that such competition was the

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ues"; but it is "important in any model of accumulation, and in this context, Marx uses the concept adequately" (pp. 116-17). If "authentic" Marxists fall out so among themselves, what are we "inauthentic" Marxists to say? Curiously Harrington, who in other respects is so ravenous about recent Marxian literature, ignores this easily available English debate and devotes himself to some recondite German arguments which deal metaphysically with the "law of Value."



'motor of destruction. O'Connor's argument, however, is that the capitalist state faces the contradictory problems of *accumulation* and *legitimation*, of providing for capital expansion yet meeting social demands. And he is right. But this is true for all societies committed to growth, because—as the present Polish government sees very well—they have to balance the need to increase capital against workers' demands for more food and social services.

Curiously, Harrington misses a neat opportunity to apply Marx's idea of competition as the source of destruction (which is nicely stated in *The Poverty of Philosophy*), as he could have done if he had taken the international economy as his canvas. Thus the strength of the Japanese and German capitalist economies is, in one sense, at the "expense of" the British economy; but this is then not "the twilight of capitalism" but the twilight of *some* capitalist societies—a point which proves Veblen right more than Marx.

If one seeks for some root source of the contemporary economic crisis, it is the fact that in the modern world demand rules the society, as against the traditional societies, where supply ruled. Within the international economy, we have seen in the past 20 years the gathering swell of an international demand which, by its synchronization through interdependence, led to a worldwide inflation. And within societies, the demand for services and entitlements has led to the expansion of the public sector—here the neo-neo-Marxist James O'Connor and the vulgar Marxist Milton Friedman (who believes that economics determines other realms of society) are in agreement—and again to a persistent inflationary pressure.

In a very different sense from what Harrington understands, Marx was right about the present. For what Marx said was that, when the "political revolution" was won, the "social revolution" would follow. The political revolution—the heart of 19th-century struggles—was the effort to gain the political franchise and similar rights. (In most European countries workers did not obtain the right to vote until the period between 1890 and 1910.) What we see now—and what has existed for the past 40 years in the United States and somewhat longer in western Europe—is the effort to extend social claims in all dimensions. This is the fruit of democracy and therefore one of the sources of crises—what Schumpeter called the "fiscal sociology" of capitalism. The one area where few such tensions exist (openly at least) is the Communist world, where the workers are suppressed.

I have said Harrington's book is a cheat. That is a serious charge. Yet it derives from his method. On a theoretical level, it derives from the most serious violation of Marx's own method, which is to treat ideas historically. In constructing his "authentic Marx," Harrington makes a pastiche in which passages from the *Economic-Philosophical Manuscripts* are joined with passages from *Capital*, etc. This is a lawyer's brief or a theological

mode, but not true to the way a man's ideas develop. He compresses passages in order to make Marx seem more foresighted than he was. For example, on pages 128–29 he quotes from Marx's *Grundrisse* (without indicating whose translation he is using) a section that shows how Marx anticipated the application of science to production. But if one compares Harrington's literary rendering with Martin Nicolaus's literal translation (Marx 1973, pp. 704–5) one can see how much more clumsy and inexact is Marx's own formulation. What is more, Harrington is quoting Marx in order to argue that I, in my book *The Coming of Post-industrial Society*, "failed to understand that Marx had anticipated [Bell's] own point on the growing importance of productivity in the domain of capitalist labor"; yet after his compressed quotation, Harrington fails to point out that, four pages further on, Marx argues that such productivity is impossible for capitalist labor: ". . . Real wealth is the developed productive power of all individuals. The measure of wealth is then not any longer, in any way, labour time, but rather disposable time. . . . *The most developed machinery thus forces the worker to work longer than the savage does, or than he himself with the simplest, crudest tools*" (Marx 1973, pp. 708–9; italics in the original).

I must add one more personal point. Harrington writes (p. 162) that Erich Fromm has charged me with a misquotation of Marx. This is so. But it reflects more on Fromm than on myself. Fromm was analyzing an essay of mine, "The Meaning of Alienation," which he had read in an Indian journal named *Thought*. Why he quoted from that esoteric source rather than the original place of publication, the *Journal of Philosophy* (November 1959), I do not know. What did not seem to occur to Fromm is that Indian typesetters often think they know the English language better than those whose native language is English; where I had written "persona," it appeared in the Indian journal as "person." That was the basis of the charge. In reviewing Fromm, Richard Bernstein was struck by the fact that in the context the statement made no sense. He wrote me about it, and I thus discovered that Fromm had misquoted me and therefore charged me with misquoting Marx. But Harrington never seems to have been struck by the obvious incongruity and repeats the charge.<sup>2</sup> Old factional habits never change.

The notion of an "authentic Marx" is inherently absurd. No protean

<sup>2</sup> Harrington makes some other statements that are of equally grave import. In *The Coming of Post-industrial Society*, I stated that Marx's *Capital* could be looked at as two different schema. One, a logical abstraction, which is in vol. 1, eliminated the *dritte personen* (the complicating elements such as farmers, shopkeepers, lawyers, etc.) to provide a "pure" theory of capitalism. In vol. 3, there was an empirical model that provided some brilliant statements about the actual transformation of capitalist society, in particular the separation of ownership and management, which modified the schema in vol. 1. I said that I found Schema 2 more fruitful than Schema 1. Harrington points out, as Engels did in his prefaces to *Capital*, that most of the materials had been written at the same time and that the task of sorting out the order had fallen to Engels

thinker can ever be given a single, unambiguous reading. We have seen arguments about whether there is one John Stuart Mill or two and whether Keynes belonged to Cambridge, England, or Cambridge, Massachusetts; and I have at hand an article from the *British Journal of Sociology* entitled "Émile Durkheim: Was He a Nominalist or a Realist?" At one point, Harrington says smugly, "All that serious Marxism demands of you is your lifetime." I have devoted half my life to the study of Marx, and that may be insufficient. But Eugene Kamenka, the Australian political philosopher, has devoted his entire life to the study of Marx. In a recent issue of the *Times Literary Supplement*, reviewing a book (*On Materialism*, by Sebastian Timpanaro) that seeks to "rehabilitate" Engels as a "true" Marxist, against his cultured despisers, Kamenka wrote, "The past history, present character and likely future development of Marxism show Marxism to be as complex and as much subject to historical change and tension as Christianity. . . . The only serious way to analyze Marxist or socialist thinking may well be to give up the notion that there is a coherent doctrine called Marxism or socialism, that there is any such thing as *the* Marxist or socialist idea, or even *the* Marxist or socialist view of the world" (Kamenka 1976, p. 1442).

Otherwise, one is left with the situation of Harold Laski, who said, biting, in replying to a critic, "You can interpret Marx in your way, and I will interpret him in *His*."

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(which makes Harrington's remark [p. 111] that Marx had written the "fourth and last volume of *Das Kapital* first and then worked backward to the beginning" quite silly, considering, too, Marx's remark to Kautsky in 1881 that he still felt the work lacked coherence). But the crucial point is that when Engels edited the volumes he made many interpolations, and we do not actually know what he did add. Harrington writes, "Then in the process of editing Volume III, which appeared in 1894, Engels made even more sweeping revisions of Marx's earlier assessments." And he goes on for two pages to indicate that these were the additions which made vol. 3 so much more relevant to the actual institutional changes in capitalism: cartels, the stock market, the corporation as an international instrument, etc. Since these were the elements I had included in my second schema, what then is the meaning of the appendix charging me with misreading Marx, when in his text Harrington makes the exact same point? Or the meaning of the offhand earlier assertion (p. 380), "A carelessness on the same count is also at work in Daniel Bell's confused statement of the Marxist view of social class [to] be taken up in Note 4 of this Appendix"—since note 4 deals with the two schema, what has it to do with social class? And since when is there "the" Marxist view of social class? In this instance, as in many other sweeping accusations against Samuelson, Aron, and others, Harrington is unfortunately imitating the habits of Marx, who rarely played fair with an opponent. If Harrington is interested in the sources of this "repetition compulsion," he should read Leopold Schwarzschild's brilliant book, *The Red Prussian*, the only book which goes into detail on Marx's vitriolic invective against opponents ("perfidious boor," "toads," "the emigrant scum," and the disgusting anti-Semitic characterizations of Lassalle); as well as two works by Marx that almost no Marxists have ever read, *The Knight of the Noble Conscience*, a vile attack on his factional opponent August Willich, and *The Great Men of Exile*, an attack on the Germans who emigrated to America which was not printed because his Hungarian publisher embezzled the publication funds. If a complete *oeuvre* of Marx is ever to appear, I commend these books to those who seek the "authentic Marx."

REFERENCES

- Braun, Oscar. 1976. "Value in Ricardo and Marx." *New Left Review*, no. 99 (September–October).
- Gamble, Andrew, and Paul Walton. 1976. *Capitalism in Crisis*. London: Macmillan.
- Glyn, Andrew, and Bob Sutcliffe. 1972. *British Capitalism, Workers and the Profit Squeeze*. Harmondsworth, Middlesex: Penguin.
- Kamenka, Eugene. 1976. "The Many Faces of Marx." *Times Literary Supplement* (November 19), p. 1442.
- Marx, Karl. (Vol. 1, 1867; vol. 2, 1885; vol. 3, 1894) 1906–9. *Capital*. Edited by Frederick Engels. Vol. 1, translated and edited from the 3d German ed.; revised and amplified according to the 4th German ed. by Ernest Untermann; translated by Samuel Moore and Edward Aveling. Vol. 2, translated from the 2d German ed. by Ernest Untermann. Vol. 3, translated from the 1st German ed. by Ernest Untermann. Chicago: Kerr.
- . (1939) 1973. *Grundrisse: Foundation of the Critique of Political Economy*. Translated with a foreword by Martin Nicolaus. London: Penguin.
- Marx, Karl, and Frederick Engels. (1932) 1965. *The German Ideology*. Edited by S. Ryazanskaya. London: Lawrence & Wishart.
- Morishima, Michio. 1973. *Marx's Economics*. Cambridge: Cambridge University Press.

## Review Essay: Habermas's Social and Political Theory

*Toward a Rational Society: Student Protest, Science, and Politics.* By Jürgen Habermas. Translated by Jeremy J. Shapiro. London: Heinemann Educational Books, 1971. Pp. x+132. £1.50 (cloth); £0.75 (paper). Boston: Beacon Press, 1971. Pp. ix+132. \$2.95 (paper).

*Knowledge and Human Interests.* By Jürgen Habermas. Translated by Jeremy J. Shapiro. London: Heinemann Educational Books, 1972. Pp. viii+356. £3.50. Boston: Beacon Press, 1971. Pp. viii+356. \$7.50 (cloth); \$3.95 (paper).

*Theory and Practice.* By Jürgen Habermas. Translated by John Viertel. London: Heinemann Educational Books, 1974. Pp. ix+310. £4.00 (cloth); £1.80 (paper). Boston: Beacon Press, 1973. Pp. ix+310. \$10.00 (cloth); \$4.95 (paper, 1974).

*Legitimation Crisis.* By Jürgen Habermas. Translated by Thomas McCarthy. Boston: Beacon Press, 1975. Pp. xxiv+166. \$8.95 (cloth); \$3.95 (paper).

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Jürgen Habermas is the most distinguished, and by that token also the most controversial, social theorist and political philosopher writing in German today. In the English-speaking world, to adopt a well-worn phrase, Habermas's works are well known, but they are not yet known well. In some part this is because of vagaries of translation. Four of Habermas's major writings have been translated into English under the titles of *Toward a Rational Society*,<sup>1</sup> *Knowledge and Human Interests*,<sup>2</sup> *Theory and Practice*,<sup>3</sup> and *Legitimation Crisis*. These, however, represent only part of a vast output, and they have not been published in a chronology which conforms directly to the development of Habermas's ideas. The original version of *Theorie und Praxis*, for example, was published in 1962, some years before *Erkenntnis und Interesse* (*Knowledge and Human Interests*), but these have appeared in reverse order in English. A more important

<sup>1</sup> A collection of essays taken from *Protestbewegung und Hochschulreform* and *Technik und Wissenschaft als "Ideologie."*

<sup>2</sup> Includes as an appendix Habermas's inaugural lecture at Frankfurt, originally in *Technik und Wissenschaft als "Ideologie."*

<sup>3</sup> This abridgment of the fourth German edition of *Theorie und Praxis* includes the essay "Arbeit und Interaktion" from *Technik und Wissenschaft als "Ideologie."*

reason for the relative lack of impact that Habermas's work has had among English-speaking social scientists is that he writes from the context of unfamiliar intellectual traditions: those of Frankfurt critical theory, hermeneutics, and Hegelian philosophy, as well as Marxism. To attempt a mix of all these sounds formidable enough, but Habermas's compass in fact extends much more widely. He is very familiar with the dominant trends in Anglo-Saxon social theory and philosophy and is considerably indebted to the latter in two particular respects. In the earlier part of his career, in conjunction with K-O. Apel, (see Apel 1971) he drew extensively upon the writings of Peirce; in his current work he makes a good deal of use of the theory of speech-acts, as developed by Austin, Searle, and others. The extraordinary range of Habermas's writings defies easy analysis. In this review essay I shall concentrate my attention upon the works available in English but shall attempt to connect them to the overall development of Habermas's thought.

Two leading, and massive, themes recur throughout Habermas's writings and give his works their continuity. One is a concern with meta-theoretical problems in social theory, especially in respect of the relation between theory and critique. The other is the objective of placing such a critique in the context of an interpretation of the main trends of development in Western capitalism since the rise of bourgeois society in 18th-century Europe. These were of course also the classic preoccupations of the "older generation" of Frankfurt social philosophers, and Habermas's work preserves certain of their emphases. His reading of Marx, like theirs, strongly accentuates the Hegelian legacy, and he is highly critical of the more orthodox forms of Marxism; he tries to complement ideas drawn from Marx with others drawn from Freud; he accepts the theorem that "organized capitalism" differs so profoundly from 19th-century competitive capitalism that some of Marx's central theories have to be radically reworked if they are to retain any relevance today; and he continues their concern with revealing the origins of the dominance of technical rationality in modern culture and politics. But these shared emphases at the same time serve to distinguish his views from the various positions taken by Horkheimer, Adorno, and Marcuse, because the modes in which he develops this inheritance differ substantially from those of his legators.

A useful way of achieving an entrée into Habermas's metatheoretical writings is via his relation to the hermeneutic tradition or the *Geisteswissenschaften*.<sup>4</sup> Some of the ideas central to this tradition, especially the notion of *verstehen*, have become well known to English-speaking social scientists—principally through the methodological writings of Max Weber, who drew extensively although critically from this intellectual source. In Weber's writings, as in those of the early Dilthey, *verstehen* is linked to the reconstruction of the subjective experience of others, the grasping of the "subjective meaning" of action, as Weber put it. Expressed in this way, the notion of *verstehen* gives rise to numerous objections, espe-

<sup>4</sup> For a further discussion, see Giddens (1977).

cially, since both Dilthey and Weber wished to claim that the method of interpretative understanding is compatible with the achievement of objectively verifiable data.<sup>5</sup> The "psychological" version of *verstehen* has been effectively criticized and transcended by Gadamer in his *Truth and Method* (1975).<sup>6</sup> Drawing extensively upon Heidegger, Gadamer develops a notion of *verstehen* in which understanding is seen not as a "method" which the historian or social scientist uses to approach his distinctive subject matter, but as the characteristic property of human intersubjectivity as such—and as expressed above all in language. Language is the medium of social being and of self-understanding. *Verstehen* depends upon common membership in a cultural frame of meaning or what Gadamer calls a "tradition." The understanding of distant historical periods, or alien cultures, can be treated as involving the establishing of dialogue between discrepant traditions. Hermeneutics, Gadamer concludes, is the universal principle of philosophy, since understanding is the condition of all knowledge. Habermas accepts some of Gadamer's main ideas but sees them as partial, rejecting the latter's claim of the "universality of hermeneutics." Habermas opens his systematic discussion of logical issues in the social sciences, *Zur Logik der Sozialwissenschaften* (1967), with the suggestion that the major problem which has to be tackled is that of connecting two disparate philosophies which have largely developed in separation from one another: hermeneutics on the one hand, and empiricist philosophies of science on the other. Certain elements of each have to be accepted, but in order to supersede both.

The arguments underlying this view are fully developed and clarified in *Knowledge and Human Interests*, which culminates the first phase of Habermas's career and remains perhaps the most hotly debated of his works. *Knowledge and Human Interests* covers a sweep of intellectual history from the late 18th century to the early 19th. In the beginning sections of the book, Habermas discusses Hegel's critique of Kant's philosophy of knowledge and Marx's critique of Hegel, proceeding thence to discuss hermeneutics and positivism as two contrasting types of philosophy, exemplified by Comte and Mach, and by Dilthey, respectively. The line of development from Kant to Hegel to Marx forms a key period in the elaboration of epistemology or the "theory of knowledge." Hegel's writings mark a high point in the development of epistemology insofar as they make central the self-reflection of the knowing subject. Marx was correct, Habermas proposes, in holding that Hegel's philosophy was inherently limited by its idealism; but in attempting to formulate a materi-

<sup>5</sup> This has been fastened upon by critics influenced by logical empiricism and behaviorism. How, they ask, can we reliably grasp the content of the subjectivity of others? If *verstehen* is of any use at all in the social sciences, they conclude, it is as a source of intuitively plausible hypotheses, which then have to be tested against observations of observable behavior. (See, e.g., Abel [1948]; Nagel [1953]. A similar view is expressed in the writings of Carnap and Hempel.)

<sup>6</sup> Originally published in German in 1961 as *Wahrheit und Methode*.

alist critique of Hegel, Marx himself slips into a basic error. What Marx does is to tend to assimilate two strands of Hegel's philosophy in his own conception of historical materialism: the self-reflection of the subject and the material transformation of the world through labor. The thesis that history is the expression of the expanding consciousness of human beings of the circumstances of their action is thus merged with and reduced to the theme that human beings transform the material world and themselves through labor. Habermas also sets out this argument at various points in *Theory and Practice*, especially in the context of a lengthy discussion of Marxism in the chapter entitled "Between Philosophy and Science: Marxism as Critique." To the degree to which Marx collapses the idea of the self-formation of the human species through reflection into that of its self-formation through productive activity, Marxism merges with the rising tide of positivistic philosophy which dominates the latter part of the 19th century. Positivism is a philosophy which eclipses the philosopher, that is, the subject reflexively investigating the grounds of his claims to knowledge. Epistemology, as Habermas puts it, is replaced by the philosophy of science, based on "the conviction that we can no longer understand science as *one* form of possible knowledge, but must rather identify knowledge with science" (*Knowledge and Human Interests*, p. 4; all citations are to British editions except where indicated).

The tradition of the *Geisteswissenschaften*, Habermas goes on to say, offers a contrasting viewpoint to positivism, but dissociates itself from the latter rather than developing a direct critique of it. Hermeneutics becomes concerned with the primacy of meaningful understanding, but only in spheres of activity disconnected from science. Hermeneutics and positivism are thus both partial philosophies, flawed by their incomplete character. A viewpoint that attempts to transcend both, which it is Habermas's aim to set out, has to recognize that they are (unknowingly) directed to different types of "knowledge-constitutive interest": different logical forms which the disclosure of reality can take, whether this be natural or social reality. Hermeneutics is oriented toward an interest in understanding, at the level of ordinary language communication, in the context of the practicalities of day-to-day social life. Positivism, on the other hand, implicitly assumes an orientation to an interest in prediction and control, in the production of instrumental or "technically exploitable" knowledge—mistakenly claiming that all knowledge which is to *count* as knowledge is of this type. The knowledge-constitutive interests in understanding and in technical control are not, for Habermas, transcendental categories of a quasi-Kantian type; rather, they are presupposed as aspects of the human self-formative process. They thus connect to two major concepts that Habermas introduces, which occupy a central place in his thought: "interaction" and "labor" (*Arbeit*). Labor refers to man's instrumental relation to the world around him. Labor or instrumental action is based upon empirical knowledge, yielding predictions that can



be tested in accordance with technical rules (*Toward a Rational Society*, pp. 91-92). It is the object of what Habermas calls the "empirical-analytical sciences" to develop knowledge which can be used instrumentally, to realize an interest in the prediction and control of events. The empirical-analytical sciences include not only the natural sciences but also the generalizing social sciences, such as sociology. (Habermas also sometimes refers to these as the "nomological sciences.") Interaction refers to the saturated context of everyday life, involving ordinary language communication and governed by social norms. This is the concern of the "historical-hermeneutic sciences." Hermeneutic inquiry, in Habermas's words, "discloses reality subject to a constitutive interest in the preservation and expansion of the intersubjectivity of possible action-orienting mutual understanding" (*Knowledge and Human Interests*, p. 310).

In *Knowledge and Human Interests*, Habermas identifies Dilthey and Peirce as the two figures who came closest to uncovering the roots of knowledge in interest, in regard of hermeneutics and natural science, respectively. But, as a result of the decay of epistemology in the 19th century, neither was able to connect his insights to a conception of the self-formative process of human history, such as had earlier been attempted by Hegel. In the context of the spreading influence of positivism, a return to this type of conception would have appeared as a regression to metaphysics. But such a reappropriation is just what is necessary for us to be able to grasp the significance of knowledge-constitutive interests: that is to say, a reappropriation of the notion of the reflexive capability of human knowledge. What has become lost to philosophy since Hegel is "the emancipatory power of reflection, which the subject experiences in itself to the extent that it becomes transparent to itself in the history of its genesis" (*Knowledge and Human Interests*, p. 197). Recognition of an interest in reflexively comprehending the conditions of our own action is thus shown to be the condition of acknowledging the interest-bound character of knowledge in general. Self-reflection is connected to the interest in achieving autonomy of action through self-understanding, and hence is an emancipatory interest. The emancipatory interest provides the guiding inspiration for critical philosophy, or critical theory, which has as its aim the liberation of human beings from their domination by forces constraining their rational autonomy of action. In Habermas's metatheoretical scheme, we thus have three elements of the self-formative process (labor, interaction, domination), connected to three knowledge-constitutive interests (technical control, understanding, emancipation), relating in turn to three types of disciplines (the empirical-analytic sciences, historical-hermeneutic sciences, and critical theory).

At the turn of the 20th century, there emerged a program of research which mobilizes each of the knowledge-constitutive interests and which, therefore, in Habermas's view provides something of a model for critical theory: psychoanalysis. Freud himself regarded psychoanalysis in a posi-

tivistic way, as a form of natural science. Looked at in terms of the theory of knowledge, however, psychoanalysis can be seen to incorporate an emancipatory aim within a framework which relates the hermeneutic and the nomological (for relevant discussions see Lorenzer [1974]; Ricoeur [1970]). Analytic theory is a dialogue between therapist and patient, and in that sense proceeds on the level of ordinary language communication. It is a hermeneutic endeavor in the sense that it investigates the character of such communication as an expression of an unconscious symbol-system. But this "depth hermeneutics" is complemented by an interest in the causal conditions influencing the behavior of the analysand, via mechanisms of repression. Hence we find in Freud a mixture of terms that are interpretative in character with others that borrow the terminology of natural science, such as "force," "energy," etc. These are related to one another through the emancipatory project of analytic therapy: the elimination of distorted communication through the enhanced self-understanding of the analysand, whereby he is able to expand his autonomy of action. The dialogue between analyst and patient simultaneously furthers the progress of emancipation and expresses it, since it makes possible the growth of mutual understanding between the two parties.

Habermas has pursued the theme of distorted communication in a series of writings, only some of which are available in English.<sup>7</sup> He has continued to defend, in the face of some considerable attack, the thesis that psychoanalysis provides an exemplar for critical theory. But a concern with distorted communication obviously presupposes an idea of what a situation of "undistorted communication" might be like—a notion of what Habermas calls an "ideal speech situation." In some part this is already latent in *Knowledge and Human Interests*, and it seems that Habermas has drawn upon Peirce's account of science in formulating the conception of an ideal speech situation. Peirce argued that scientific truth concerns not the relation between an isolated observer and his subject matter, but a consensus arrived at through the discourse of many observers, where that discourse is not constrained by anything other than the canons of logical procedure or rational argumentation. Habermas in effect generalizes this, since Peirce's argument refers only to one aspect (instrumental rationality or the technical interest) of the three dimensions of the human self-formative process. An ideal speech situation, the "baseline" against which distortions in empirical circumstances of social conduct can in principle be determined, involves not only the rational attainment of consensus but also complete mutual understanding by participants and recognition of the authentic right of each to participate in the dialogue as an autonomous and equal partner.

The ideal speech situation is an analytical construct but, Habermas argues, any actual circumstance of communication anticipates it implicitly.

<sup>7</sup> For example, "Toward a Theory of Communicative Competence" (1970); "Some Distinctions in Universal Pragmatics" (1976).

Communication in interaction, he has tried to show in his most recent discussions of "universal pragmatics," raises four types of "validity-claims": those of *Verständlichkeit* (intelligibility), *Wahrheit* (truth), *Richtigkeit* (adequacy or correctness), and *Wahrhaftigkeit* (veracity or "truthfulness"). Consensual interaction can be carried on only to the degree that participants credibly sustain validity claims in each of these respects (which are usually taken for granted but can always be "problematized," either by those involved or by the sociological observer): that what each speaker says is intelligible or meaningful; that the propositional content of what he says is true; that what he says is normatively legitimate; and that he is speaking honestly and without guile. *Verständlichkeit*, Habermas proposes, is the condition of all symbolic communication whatsoever; it has a different status from the other validity-claims, since communication must be intelligible before the others can be problematized at all. *Wahrhaftigkeit* also has to be separated out in a certain sense, because genuineness of intention can only be really demonstrated in how a person actually behaves. The other two are open to discursive justification, yielding two major types or parameters of discourse: "theoretical-empirical discourse," concerned with the sustaining of truth claims, involving appeal to empirical observation, and couched in terms of law-like generalization; and "practical discourse," concerned with justifying normative claims, involving appeal to interpretations of values, and couched in terms of appeal to moral principles ("Some Distinctions in Universal Pragmatics").

In his ongoing writings, Habermas is attempting to relate the mastery of these two forms of discourse to the psychological development of the child (using Piaget and Kohlberg) and to the major stages of human social evolution (Habermas 1976). What will emerge from this work still remains to be seen. It is clear enough, however, that Habermas's current concern with these issues links directly not just to the metatheoretical problems I have sketched so far, but also to more substantive themes which have preoccupied him from the earliest part of his career onwards. In his first major work, *Strukturwandel der Öffentlichkeit* (1962) Habermas undertook a historical study of the rise (and subsequent decline) of discursive politics in bourgeois society from the 18th century to the present day.<sup>8</sup> The book was much debated in Germany and had an important influence upon the student movement, although Habermas himself eventually came to a position of sharp dissension from the views of some of the student leaders.<sup>9</sup>

A "public sphere," in which political life can be discussed openly in accordance with standards of critical reason Habermas tried to show in the

<sup>8</sup> The book has been the subject of much commentary; see, e.g., Jäger (1973).

<sup>9</sup> Two of Habermas's essays on students and politics are included in *Toward a Rational Society*: "Student Protest in the Federal Republic of Germany" and "The Movement in Germany: A Critical Analysis."

study, emerges for the first time in the 18th century. "Public opinion" becomes differentiated from mere "opinion," prejudice, or habit: the former presupposes a reasoning public. The bourgeoisie promoted the development of the public sphere in opposition to the traditionalist and hierocratic forms of authority of feudalism. This development reflects the division between civil society and the state characteristic of the emerging bourgeois order: the formation of rational public opinion mediates between society and the state. The spread of newspapers and journals, which both express and help fashion public opinion, played a major role in this process. The bourgeois or liberal idea of the public sphere was always at some distance from the reality but has been increasingly undermined as a consequence of the social changes which have occurred from the early part of the 19th century to the present day. Today state and society increasingly interpenetrate: the public sphere is squeezed or "refeudalized" by the growth of large-scale organizations coordinated with government, and by the commercialization of the media. The expanding influence of science and more generally the technical rationalization of social life accentuate this process.

The impact of technocratic consciousness in advanced capitalism is discussed by Habermas in several of the essays included in the English edition of *Theory and Practice* and in *Toward a Rational Society*. Since the latter part of the 19th century, he says, two major trends have become marked in Western capitalism: the burgeoning of state interventionism, directed toward stabilizing economic growth, and the increasing mutual dependence of research and technology, as a consequence of which science has become a leading force of production (*Toward a Rational Society*, pp. 50 ff.). These changes mean that the relations between "infrastructure" and "superstructure" which Marx specified in relation to 19th-century competitive capitalism no longer apply. The idea that politics can be treated as part of the superstructure is adequate only so long as polity and civil society are separated, with the latter being "autonomously" regulated through the operations of the market; and this is no more the case. The "political" and the "economic" are no longer easily separable. Hence the old form of legitimation, based upon the ideology of fair exchange, and expressed in its most sophisticated form in classical political economy, becomes increasingly obsolete, and is replaced by new modes of legitimation. There can be no return, Habermas argues, to the type of direct legitimation of power characteristic of the precapitalist order, and the legitimation system of advanced capitalism thus tends to become a technocratic one, based upon the capability of elites to "manage" the economy successfully and sustain economic growth.

Because of the premium placed upon "controlled economic development," science is more and more directly harnessed to the process of technological innovation. This situation, Habermas suggests, undermines the relevance of Marx's theory of surplus value; the labor power of the

immediate producers now plays a relatively small role compared to the value generated by scientific-technical innovation. Critical theory can no longer be limited to the critique of political economy but must extend the critique of ideology to encompass the ramifications of technocratic power. Just as the traditional formulation of the theory of surplus value has to be abandoned, so do other basic formulae of Marxian theory, including that of class conflict. "State-regulated" capitalism emerged in substantial part in response to the massive strains created by direct class antagonism. Class division, based in private property, still remains integral in advanced capitalist society. But it has become the area where the society can *least* admit the occurrence of open confrontation or struggle; hence direct conflicts tend to break out most frequently in those sectors which have less transformative consequence for the system. Conflicts which reflect divisions at the center become manifest at the periphery.<sup>10</sup>

At the core of the technocratic ideology of advanced capitalism, Habermas says, is the collapse of the distinction between the categories of labor and interaction, or the technical and practical: positivism, which also assimilates these categories, reducing the latter to the former, is hence a philosophical expression of technocratic domination. The growth of technical powers of control in contemporary society, he makes clear in *Theory and Practice*, can be analyzed in terms of four levels of rationalization.<sup>11</sup> On the first two of these levels, the growth of technology is associated with the exclusion of normative elements from scientific discourse; on the other two levels, technical procedures become established as values in themselves, the preexisting value elements having been defined as "irrational." The first level of rationalization involves simply the use of nomological knowledge for the realization of independently affirmed values. Rationalization proceeds on the second level when choice is demanded between two or more procedures of equal technical effectiveness. One of the expressions of this is the development of formal "decision theory," which attempts to rationalize the relation between goals and values, rather than being limited to providing technical means of reaching given ends. On each of these levels, values are treated as removed from the possibility of rational discussion, save insofar as some values are in part means to the realization of others. When technical rationality is extended to values themselves, we have moved to the third level of rationalization. The clearest example of this level, Habermas suggests, is game theory, where actors are treated as evaluating the consequences of their actions in terms of a calculus of preferences intrinsic to the postulated form of the game, without reference to any wider value-systems, which then disappear from view. The final, and most embracing, level of rationalization is reached when the strategic decision-making framework, such as is characteristic of game theory, is generalized to cover all types of decision: where "sta-

<sup>10</sup> This idea has been developed in various publications by Claus Offe.

<sup>11</sup> See especially "On Theory and Praxis in Our Scientific Civilization."

bility" or "adaptability" becomes the basis of analysis of decision making within self-programming feedback systems. On this level of rationalization, decision making can in principle be carried out through the computer: and it is this stage of rationalization toward which modern technocratic politics is moving on a large scale. This, in Habermas's words, is a "negative Utopia of technical control over history." It is the most complete form of the reduction of the practical to the technical: hence Habermas's critical attitude toward systems theory, which he sees as the political economy of the contemporary era (Habermas and Luhmann 1971).<sup>12</sup>

In *Legitimation Crisis*, which first appeared in 1973 in German as *Legitimationsprobleme im Spätkapitalismus*, Habermas provides an extensive discussion of these and other issues. The language of systems theory is drawn upon and turned back against itself, and the theme of the displacement of strains from the "center," the class structure, is developed. Although the central conflict has been displaced, advanced capitalism is still riven by contradictions and open to persistent crises. The term "crisis," Habermas argues, itself needs elucidation. The word originally comes from medical usage, and was from there imported into the social sciences. In its medical sense, it refers to the phase of an illness which determines whether or not the healing processes of the organism produce the recovery of the patient. A crisis in the context of illness is not just an "objective" sequence of events; it is something experienced by the patient, having the form of powerlessness dramatically contrasting with his normal capabilities as an autonomous being. To speak of a "crisis" is therefore to give a series of events a normative meaning, counterposing determinism to liberation. This is basic to the viewpoint which Habermas tries to develop in the book. There cannot be an adequate systems-theoretic (or functional) concept of crisis, simply treating "crisis" as equivalent to "threat to the stability of the social system"; the concept of crisis, in the context of critical theory at least, has to be understood as conjoining the "subjective" and "objective," as involving the *experience* of impairment of autonomy of social action in certain definite social conditions. We can grasp the relation between the subjective and objective components of crisis tendencies, Habermas claims, by distinguishing between social integration and system integration. Social integration refers to the "life-world," "in which speaking and acting subjects are socially related," system integration to abstractly conceived social systems, which however are to be seen as rooted in a normative order of symbols. Crises can be regarded as unresolved "steering problems," of which actors in the life-world are often not conscious but which express themselves on that level in normative strain and a diminishing autonomy of action.

The "steering problem" of advanced capitalism, Habermas tries to show, can be illuminated against the background of a general theory of evo-

<sup>12</sup> The debate in this book has ramified into several further volumes by other protagonists.

lution.<sup>13</sup> What Habermas seeks to achieve here is nothing less than a wholesale overhauling of Marx's historical materialism, based on the differentiation of labor and interaction. The evolution of human society proceeds in two separable but connected dimensions: the development of the forces of production (which can be thematized as instrumental knowledge, oriented to technical control), and the development of normative orders (which can be thematized as symbolic norms ordering communication). Each involves knowledge-claims which, as Habermas has indicated previously, are in principle open to discursive redemption. In respect of the first, the theory of evolution aims to reconstruct the formation of scientific and technical knowledge, and in respect of the latter, the opening of normative structures to discourse via the movement through "increased reflexivity of the mode of belief, which can be seen in the sequence: myth as immediately lived system of orientation; teachings; revealed religion; rational religion; ideology" (*Legitimation Crisis* [American ed.], p. 12). The relation between the development of the forces of production and normative structures, Habermas claims, is a problematic one. The changes which occur in one sphere do not necessarily produce corresponding alterations in the other, and this is the source of steering problems. In every type of social formation, what Habermas calls a "principle of social organization" connects forces of production and normative structures; steering problems lead to crisis effects if the organizational principle of the society in which they occur is unable to accommodate to them.

Habermas distinguishes several major types of society based on different principles of organization. "Primitive social formations" are organized around age and sex roles, coordinated through the kinship system. "Traditional social formations" are organized in terms of political class domination: a bureaucratic state apparatus serves as the coordinating focus of the hegemony of a landowning class. In more modern times the two most important types of society are liberal capitalism and advanced or "organized" capitalism. As regards the former, as he made clear in his earlier writings, Habermas accepts the main lines of Marx's analysis, although he attempts to reconceptualize it in his own terminology. In liberal or competitive capitalism, the organizational principle is centered upon the relation of capital and wage-labor, and involves the duality of state and society. In contrast with the previous type of social formation, in liberal capitalism class relationships are depoliticized and made anonymous: class relations express the asymmetries of economic exchange, and the latter becomes the principal steering medium. This system greatly expands the range of the productive forces and furthers the secularization of belief on the level of normative structures. The formation of the "public sphere" corresponds to the drive of bourgeois ideology toward universal principles defended by reason rather than by tradition and by the "anony-

<sup>13</sup> Discussed in *Legitimation Crisis*, pp. 7 ff. (American ed.), and in *Zur Rekonstruktion des Historischen Materialismus*.

mization" of class rule. "The socially dominant class," Habermas says, "must convince itself that it no longer rules" (*Legitimation Crisis* [American ed.], p. 22). Since the organizational principle of competitive capitalism involves an "unregulated" market, steering problems express themselves as economic crises of a periodic character. Liberal capitalism produces "a crisis-ridden course of economic growth."

The main differences Habermas acknowledges between liberal and advanced capitalism are familiar from his writings prior to *Legitimation Crisis*. The development of strong tendencies toward monopoly or oligopoly within the economy, coupled with the expanding interventionism of the state, coordinated by the spreading rationalization of technical control, transforms the organizational form of capitalism. Advanced capitalism is still capitalism, but the central economic contradictions express themselves in novel and more complex form than previously. While class relations are "repoliticized" in a certain sense, the directly political form of class domination characteristic of precapitalist societies is not thereby restored: because, as Habermas has reiterated throughout his writings, capitalism cannot retreat to the traditional forms of legitimacy based on religion or custom. Advanced capitalism really needs such a mode of direct legitimation but does not itself generate it; rather it corrodes these older forms of legitimacy. In their place it is able to put only the administrative capability to control the economic system: to be able to overcome the economic fluctuations of competitive capitalism. To achieve this, Habermas reaffirms, the center has to be controlled most firmly: overt, politicized class conflict is not the most typical form of social conflict in advanced capitalism.

Advanced capitalism is a crisis-ridden society but one in which, as a result of the partial success in stabilizing economic fluctuations, crisis tendencies express themselves in various guises. Habermas finds four such types of crisis tendency, interwoven with one another. One type is economic crisis, but like class conflicts today, and for the same reasons, economic crises rarely appear in pure form. Economic steering problems have come to be treated largely as problems of rational administration: difficulties in resolving dilemmas of economic growth thus tend to become "rationality crises." A rationality crisis is a hiatus in the administrative competence of the state and its affiliated agencies, an inability to cope. Habermas has already argued that the ability to cope, to coordinate economic growth successfully, is the main element in the technocratic legitimation system of late capitalism. Hence it follows that rationality crises, if prolonged or pronounced, tend to devolve into legitimation crises, the potential of mass withdrawal of support or loyalty. Finally, crises of legitimacy can in turn become "motivational crises": the motivational commitment of the mass of the population to the normative order of advanced capitalism is tenuous anyway, as the old moral values are stripped away. Technocratic legitimation provides little in the way of meaningful moral



commitment, but only the provisional acceptance of a materially successful economic system; the threat of widespread anomie, Habermas says, is endemic in late capitalism.

Since organized capitalism remains a contradictory order, whose principle of organization cannot satisfactorily reconcile the forces of production (more and more dominated by scientific-technological imperatives, but still resting on private property) with the normative structure (technocratic legitimation), its crisis tendencies cannot be overcome without major social transformation. But what chances are there of this occurring, and what form might such a transformation take? We find very little in *Legitimation Crisis* in the way of answers to either of these queries. Habermas mentions the possibility of the emergence of a "postmodern" era at one point, referring to Bell's concept of the postindustrial society, but does not develop the comment. The other relevant remarks which he occasionally makes are cursory and tentative, and the concluding part of the work reverts to a high level of abstraction, raising again the general question of the redemption of validity claims in "practical discourse."

As a consequence, whatever illumination the reader may derive from *Legitimation Crisis*, he is likely to feel dissatisfied with its outcome. The book condenses and connects many of the ideas developed in Habermas's previous writings, but it raises more dilemmas than it claims to resolve. It would perhaps not be too harsh a judgment to say that this is true of all Habermas's major writings. Certainly his work, since its beginnings, has stimulated a continuing chorus of criticism—"critical theory criticised" as one author surveying the response to *Erkenntnis und Interesse* put it (Dallmyr 1972). Habermas has been involved in a series of public controversies—with Albert, in relation to the writings of Popper, and with Gadamer, Luhmann, and others—which have helped shape the direction of development of his thought as well as led him to modify some of his original ideas. I shall not attempt to survey these debates here and will offer only a brief personal assessment of the strengths, and what seem to be some of the main shortcomings, of his work.

As for the former, perhaps it is sufficient to say that no one can approach basic problems in the social sciences today, in respect of either the philosophy of method or the more substantive theory of the development of the advanced societies, without confronting Habermas's writings in a serious and systematic way. Habermas has helped to forge closer contacts between Continental and Anglo-American philosophy and social theory; he has made it clear that traditional versions of the epistemology of the social sciences have to be radically overhauled; he has developed the main threads of a powerful analytical model for interpreting the major processes of development that have transformed, and are transforming, Western culture; and he has elaborated a scheme for grounding critical theory that departs significantly from those formulated by the

earlier generation of Frankfurt philosophers. And yet I would be prepared to say that there is barely one of the major claims in Habermas's writings that I should be willing to accept without reservation.

On the level of metatheory, I think the differentiations which Habermas makes between the nomological, hermeneutic, and critical, and between labor, interaction, and power, which are tied into a whole series of other distinctions, are unsatisfactory. The logical status of the knowledge-constitutive interests, as many critics have pointed out, is obscure. Moreover, the contrasts drawn between the first two terms in each of these triads seem to me to preserve too much of the old *erklären/verstehen* distinction that has dogged the tradition of the *Geisteswissenschaften*, even if Habermas does rework these notions very considerably.<sup>14</sup> This polarity of "explanation" and "interpretation" or "understanding," although not applied by Habermas to separate the natural and the social sciences, has two consequences. On the one hand, it obscures the degree to which knowledge aimed at technical control is interpretative in character: an "explanation" in science often consists in locating an observation within a theoretical system so as to render it "understandable." In spite of his strictures against positivism, Habermas seems to preserve something of the logical empiricist view of scientific theory (as a deductive system of causal laws) in his own scheme. Conversely, "predictability" and "control" are integral features of interaction without being linked to nomology: the "predictability" of human interaction is in some part a contingent accomplishment of lay actors. One result in regard of the distinction between labor and interaction is that the latter comes to be equated, implicitly or otherwise, with symbolic communication or "communicative action," and it is difficult to recover conceptually the material interests (in the usual sense of that term) involved in interaction. Critique then tends to become identified with the critique of ideology; or at least, the abstract provisions of the latter exist at some distance from the practicalities of achieving real social change. Similar difficulties seem to exist in the appeal to psychoanalysis as an exemplar for critical theory. The emancipatory goal of psychoanalysis, the expanded autonomy of the patient, is achieved through a process of self-understanding developed through the analyst-patient dialogue. Here there is a preexisting consensual system, since analysis is entered into voluntarily by both parties; the participants share a mutual interest in the outcome, the betterment of the patient; the process of therapy is organized purely through symbolic communication; the achieving of reflexive understanding is the very medium of the extension of the analysand's autonomy of action; and the "domination" which the patient overcomes as a result of successful therapy is that of his own inner makeup, not the domination of others over him. None of these conditions seem to apply

<sup>14</sup> For a longer discussion of some issues, see Giddens (1977).

in the circumstances of actual social life, for example in situations of class domination.<sup>15</sup>

Similarly, there are various critical observations which one could make on Habermas's discussion of the rise and decline of the public sphere and the transition from liberal to organized capitalism. His reappraisal of Marx, in respect of the latter's analysis of liberal capitalism at least, seems to me to be both too revisionist and not revisionist enough. Not revisionist enough, because he accepts too readily that Marx's account was valid in the 19th century; Habermas's portrayal of competitive capitalism is a rather orthodox one in this regard. Too revisionist, because he writes off too completely the relevance of some central Marxian ideas today. One must surely accept that, in classical Marxian theory, the themes of the rationalization of social and economic life, and its consequences for human freedom, are broached only very inadequately. But I am not convinced that technocratic consciousness has submerged preexisting economic divisions and conflicts as pervasively as Habermas seems to believe.

#### REFERENCES

- Abel, Theodore. 1948. "The Operation Called *Verstehen*." *American Journal of Sociology* 54 (November): 211-18.
- Apel, Karl-Otto. 1971. *Transformation der Philosophie*. Frankfurt: Suhrkamp.
- Dallmyr, Fred R. 1972. "Critical Theory Criticized: Habermas's *Knowledge and Human Interests* and Its Aftermath." *Philosophy of the Social Sciences* 2 (3): 211-29.
- Gadamer, H.-G. 1975. *Truth and Method*. London: Sheed & Ward.
- Giddens, Anthony. 1977. "Habermas' Critique of Hermeneutics," In *Studies in Social and Political Theory*. London: Hutchinson.
- Habermas, Jürgen. 1962. *Strukturwandel der Öffentlichkeit*. Neuwied: Luchterhand.
- . 1970. *Zur Logik der Sozialwissenschaften*. Frankfurt: Suhrkamp.
- . 1970. "Toward a Theory of Communicative Competence." Pp. 115-48 in *Recent Sociology, Number 2*, edited by Hans Peter Dreitzel. New York: Macmillan Publishing Co.
- . 1973. "A Postscript to *Knowledge and Human Interests*." *Philosophy of the Social Sciences* 3 (3): 157-89.
- . 1976. "Some Distinctions in Universal Pragmatics." *Theory and Society*. Vol. 4.
- . 1976. *Zur Rekonstruktion des Historischen Materialismus*. Frankfurt: Suhrkamp.
- Habermas, Jürgen, and Niklas Luhmann. 1971. *Theorie der Gesellschaft oder Sozialtechnologie?* Frankfurt: Suhrkamp.
- Jäger, W. 1973. *Öffentlichkeit und Parlamentarismus: eine Kritik an Jürgen Habermas*. Stuttgart: W. Kohlhammer.
- Lorenzer, A. 1974. *Die Wahrheit der psychoanalytischen Erkenntnis*. Frankfurt: Suhrkamp.
- Nagel, Ernest. 1953. "On the Method of *Verstehen* as the Sole Method of Philosophy." *Journal of Philosophy* 50 (5): 154-57.
- Ricoeur, Paul. 1970. *Freud and Philosophy*. New Haven, Conn: Yale University Press.

<sup>15</sup> Habermas comments on criticisms of this sort in "A Postscript to *Knowledge and Human Interests*" (1973) and in the "Introduction" to the fourth edition of *Theory and Practice* (which appears in the English translation).

## Book Reviews

*The Transition from Feudalism to Capitalism*. Edited by Rodney Hilton. London: New Left Books, 1976. Pp. 195. \$8.50.

Michael S. Kimmel

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In the early 1950s, following the publication of Maurice Dobb's *Studies in the Development of Capitalism* (1946), an exciting debate developed among Marxist historians and social scientists concerning the nature, origins, and dynamics of the transition from feudalism to capitalism. Many of the original contributions to this debate were published in *Science and Society*, where they appeared as a lively interchange of comments and rejoinders for almost two years.

In the quarter century since the first set of articles in the debate appeared, a number of original and thoughtful papers and books have been written on the transition. However, the entire corpus of original articles has been unavailable except in a long out-of-print English collection edited by Paul Sweezy (Sweezy et al., *The Transition from Feudalism to Capitalism* [London: Fore Publications, n.d.]), whose review of Dobb's book touched off the entire debate.

Now, however, a new collection has been published, edited by Rodney Hilton, professor of history at the University of Birmingham. This edition contains all the original materials from *Science and Society*, plus significant contemporaneous articles written for other journals, together with a set of four more recent contributions to our understanding of the transition.

Essentially, the debate centered on three fundamental questions, each of which was important not only for historically specific empirical research, but also for assessing the accuracy of Marxist theory in general. First, the debators asked, what was the nature of feudalism as a mode of production? In particular, they were concerned with the social relations that would present an adequate definition of feudalism and the productive base of feudal social structure. Second, they asked what the role of the feudal state was; its nature, class bases, and process of centralization became specific concerns. Third, and probably most important, were the questions aimed at delineating the "prime mover" in the transition, asking why capitalism emerged from feudalism where and when it did in the first place.

Dobb's original position was that feudalism can be defined by understanding the relationship between the serf and the lord in a "petty" mode of production, that is, the relationship between "the direct producer and his overlord" in which "the producer is in possession of his means of production as an individual producing unit" (p. 58). More important, however, Dobb conceived of the crisis of feudalism, and its ultimate decline, as developing within the boundaries of the feudal mode of production. Feudalism, Dobb argued, collapsed as a result of the

intensification of its own internal contradictions: "The inefficiency of feudalism as a system of production, coupled with the growing needs of the ruling class for revenue, that was primarily responsible for its decline" (*Studies*, p. 42).

Paul Sweezy, on the other hand, argues that feudalism is "an economic system in which serfdom is the predominant relation of production and in which production is organized in and around the manorial estate of the lord" (p. 35). While he cautions that his definition does not imply a necessarily stable or static system, he does note that it is free of "the pressure which exists under capitalism for continual improvements in methods of production" (*ibid.*).

Sweezy further argues that, not the articulation of internal contradictions, but "the growth of trade was the decisive factor in bringing about the decline of western European feudalism" (p. 41). Here Sweezy supports Henri Pirenne's classic formulation that the reemergence of Mediterranean trade routes in the 11th century (after a four-century hiatus), coupled with the introduction of the Baltic and North Seas as trading areas, was the main impetus in the development of capitalism.

The subtleties of both Sweezy's and Dobb's positions are worked out in a meticulous fashion throughout the remainder of the volume by the other authors. It is interesting to note, however, that nearly every contribution agrees fundamentally with Dobb. Christopher Hill, for example, notes that Sweezy equates "a feudal state with a state in which serfdom predominates" (p. 121) and that Dobb's great merit is that he refutes this equation by showing that "the partial emancipation of the petty mode of production does not in itself change the economic base of society . . . although it does prepare the conditions for the development of capitalism" (*ibid.*).

Hill's major contribution, in his short "Comment," is in showing that throughout the general crisis of feudalism, and precisely by unshackling the feudal mode of production by the introduction of trade (still within feudalism), the state increased its central power in order to "repress peasant revolt," "use taxation to pump out the surplus retained by the richer peasantry," and "control the movements of the labor force by *national* regulation" (p. 121).

Georges Lefebvre, the great historian of the French Revolution, differs in his account from most others in this volume, arguing that the relations of production (lord and serf) are not the defining characteristics of feudalism at all, but that "the specific characteristic of a feudal regime was the hierarchical relationship between a lord and his vassals . . ." (p. 122). However, Lefebvre alludes only to the political relationship based on military obligation in defining feudalism, and it is clear that while feudalism did maintain a unique political structure, this structure does not define the entire society.

It is Giuliano Procacci, in his "Survey of the Debate," who provides the most convincing refutation of Pirenne and Sweezy when he argues: "To assert that feudalism was an immobile historical formation, not itself capable of internal development but merely susceptible to external

influence, is precisely to pose the problem in terms of random contingency and not in terms of dialectical interaction" (p. 129). Procacci sides here, of course, with Dobb as he argues that capitalism develops within the feudal mode of production: "The 15th and 16th centuries do not appear as a phase in their own right, as a distinct intermediate era between feudalism and capitalism, but as a historical period characterized by the emergence and development of capitalist forms within the framework of a surviving feudal mode of production" (p. 136).

Following the presentation of the "classic" contributions to the debate, Hilton has included four additional essays. The first, which he wrote, "Capitalism—What's in a Name?", reasserts the anti-Sweezy position of the external introduction of capitalism, while further urging a closer look at political relations: "It is not possible to talk of a capitalist *society* when political power is still in the hands of a feudal aristocracy" (p. 154).

Two short pieces, one by Eric Hobsbawm, the other by Dobb, were first published in *Marxism Today* (1962). Hobsbawm regards the 16th-century transition as a key to understanding uneven development and the origins of contemporary underdevelopment. (His position is therefore similar to that of the recent work by Immanuel Wallerstein.) Dobb restates his earlier argument in the form of simplified axioms. The final article, recently published in *New Left Review*, is John Merrington's "Town and Country in the Transition to Capitalism," which provides perhaps the most exciting and original thought on the growth of towns and the concomitant "ruralization" of the countryside since the debate began.

Rodney Hilton also provides a fairly long introduction to the book in which he describes both the chronological and conceptual histories of the debate, from its classic origins to the most recent research. But, of course, the real "classic" formulation is that of Marx, to whom all contributors to the debate look for justification. But this volume is not a simple homage of the true believers to the great master; it is a book of careful and insightful (often brilliant) exposition by some of the foremost minds in Marxist social science in the past 30 years.

It is also exciting to be allowed to experience the chronology of the debate as a process in itself. It is captivating to experience the lively exchange of comment and rejoinder; in this sense, the collection of essays presents more of a dialectical process than a comprehensive historical analysis. No synthesis of the various positions is offered, although Merrington comes perhaps the closest to realizing one.

This book is already an important document of Marxist scholarship and will certainly become a valuable reference for researchers into the transition from feudalism to capitalism. It also provides a fine (even if partially obscured by its overt intention) presentation of historical methodology, informing us where to look if we wish to understand the transition. Finally, the book is important because it is about an era of transition from one mode of production to another, a firm historical understanding of which is particularly relevant to those of us who find ourselves involved in another modal transition.

*The Formation of National States in Western Europe*. Edited by Charles Tilly. Princeton, N.J.: Princeton University Press, 1975. Pp. xiv+711. \$22.50.

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This book is the latest addition—probably the penultimate one—to a series of studies on modernization sponsored by the Committee on Comparative Politics of the Social Science Research Council. As the title indicates, it focuses on the processes of state formation in early modern and modern Europe (i.e., 16th century through the 18th century and to some extent through the 19th century), with an emphasis on the analysis of the concrete processes through which states were formed in Europe. The list of chapters gives us a very good picture of the contents of the book in general and of the type of processes of state formation with which the book is concerned.

The contents attest also to the way in which this book departs from other volumes in the Committee's series. The nature of some of these departures is stated clearly in the statements by L. W. Pye, the chairman of the Committee, in his foreword, and by the editor, Charles Tilly, both in his introduction and in his summing-up chapter. For example: "This eighth volume in the series of Studies in Political Development represents two new departures in the intellectual history of the Committee on Comparative Politics of the Social Science Research Council: a 'return to Europe,' and an attempt to collaborate with historians" (p. ix).

Tilly's major concern is to understand why the nation-state emerged as a major political form in modern Europe:

The hard questions are: (1) what structural alternatives were possible; and (2) why this alternative rather than the others? I have identified the empire, the theocratic federation, the trading network and the feudal system as possible alternatives. I have then gone on to propose that the preexisting political fragmentation, the weakness of corporate structures, the effectiveness of specialized organization, the openness of the European periphery and the growth of cities, trade, merchants, manufacturers, and early capitalism weighted the outcome toward the national state. Such a statement implies that a number of other factors like the particular geography of Europe, its cultural homogeneity, and its largely peasant population did not affect the choices among outcomes so much. The way to check out such assertions is through a detailed comparative examination of the correlates of state-making and the alternative processes both in Europe and elsewhere. But this book can be no more than a preface to that noble enterprise. . . . [P. 31]

The chapters on the different aspects of processes of state formation constitute the core of the book and provide very detailed and well-organized data on such processes, data not readily available to social scientists and but rarely analyzed by historians in the framework of comparative social science problem setting. In this way, the book's approach

to its subject is in the institutional-historiographic tradition of such scholars as Otto Hintze, Marc Block, and E. Brunner.

The book's orientation is on the whole more systematically comparative and analytical than the work of these scholars, but the individual chapters are probably less so. The major contributions of each of these chapters have been ably surveyed by the editor. For reasons of space, I shall quote, at random, only two passages from Tilly's survey, which will yet convey the general flavor of the contents.

S. E. Finer traces the relationship between the development of major features of the modern state (territorial consolidation, specialized personnel, integrity recognized by other states), its special case the modern nation-state (which adds self-consciousness of common identity, as well as some mutual distribution and sharing of duties and benefits) and the changing character of national armed forces (especially as summed up by "format," which includes basis of service, size composition and stratification). His principal method is to compare the transformations of France, Britain, and Prussia-Germany in both regards arguing causal connections by comparison. And his chief conceptual device is the identification of clusters of variables, or "cycles": (1) economy-technology-format; (2) stratification-format; (3) beliefs-format; (4) format options; (5) extraction-coercion; and (6) state-building. Having identified the cycles in this way, he then forms his argument as a series of statements about links among the cycles. [p. 51]

Rudolf Braun adopts a rather different approach to taxation from that of Gabriel Ardant. He devotes himself more assiduously to the construction of a continuous account of fiscal policies in England and Brandenburg-Prussia from the sixteenth century onward. He is much more concerned to pin down the differences between the two countries, and to explain them in historical terms. Whereas Ardant emphasizes the obstacles to the success of different kinds of fiscal policies and the respects in which the economic infrastructure constrained the system of Taxation, Braun usually begins with the political situation which led the British or German rulers to adopt a given set of policies as a fact whose long-run consequences become the focus of historical investigation. [P. 85]

The specific contribution of each chapter has, of course, to be evaluated by specialists, but, taken together, the contributions seem to provide a much more dynamic picture of processes of state formation than can be found in most of the literature on modernization.

The emphasis of the picture presented in this book is on the historical-comparative approach much more than on what Tilly calls the developmental ("stage") and functional approaches which have, according to his summary, dominated the literature on modernization or on comparative political developments—although he stresses that in principle the three approaches are not incompatible. In this volume, such a broad historical comparative approach is represented in the chapter by Stein Rokkan which constitutes the fullest elaboration to date of his ideas about processes of state formation in Europe, as well as in Tilly's own analysis, in the first chapter of the book, of the historical background of Europe.

Throughout these chapters there is also a very strong stress on the



international system as influencing the process of state formation—thus emphasizing perhaps even more than before the unique nature of the European experience.

The way in which the more general theoretical conclusions are presented does not do full justice to the theoretical potentialities of the materials gathered in the various chapters, to the analysis of historical conditions of Europe presented in Tilly's introductory chapter, or to the material in Rokkan's chapter.

The concrete processes of state formation analyzed in these chapters, be they the formation of armies, of police agencies, taxation structures, or the like, are not specific to Europe. Such processes have existed as part and parcel of the formation and maintenance of all large-scale "traditional" states, including imperial systems like the Chinese, Roman, or Byzantine ones or such "patrimonial societies" as the Ahmenid Kingdom or ancient Middle Eastern or South East Asian states. Hence there arise some questions as to the differences between these processes in these "historical" societies and in the modern European setting and the ways these processes differ from those in modern states outside Europe.

The weakness or lack of validity of the answers of the older models does not diminish—as Tilly fully recognizes—the importance of these questions or the search for answers to them. Such answers are not, however, provided in this book; at most, some very preliminary indications can be found in the sense that the book presents a sort of "in-between" stage in the theoretical development of comparative historical studies in general and those of modernization in particular. But at the same time the richness of the materials, as well as the new analytical departures presented in it, provides important points of departure for future inquiry.

*The Transition to Socialist Economy.* By Charles Bettelheim. Translated from French by Brian Pearce. Atlantic Highlands, N.J.: Humanities Press, 1975. Pp. 255. \$17.45.

Meghnad Desai

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This is a collection of six essays, written in the mid-sixties, arising out of a series of lectures given by Charles Bettelheim at the Sorbonne. It is eight years since it was published in French under the title *La Transition vers l'économie socialiste* (Paris: Maspéro, 1968). Bettelheim's views on the subject of the economics of socialism have been rapidly evolving in a direction radically different from the one he was pursuing when he began this series of essays. Indeed, this collection signals many of the changes which were to come in his views, and hence, though the book has been superseded by his later books, its belated publication is to be welcomed.

Early mechanical versions of Marxism describe the transition from capitalism to socialism as an irreversible, unilinear development. Many features of the Soviet economy which were thought to be ominous from a

socialist perspective were often excused by saying that the Soviet Union was in a transition to socialism but had not yet arrived there. But state ownership of means of production more than 50 years after the Revolution has not solved the economy's many problems. Bettelheim looks at this from a Marxist perspective.

✓ The principal contradiction is that, while means of production are collectively owned, there is still wage labor. The control of means of production is in the hands of a bureaucratic priority which has the power of hiring and firing workers. In addition, many production and consumption decisions reveal that planning and market coexist. Commodities are still being produced and the law of value has not been superseded.

In Western literature on Communist countries, the inefficiencies of these economies in many respects have been blamed on the lack of a market mechanism, and on the lack of profit incentive for management of public enterprises and for farmers. For many Marxists, the market principle is anathema, and they would wish to hasten the centralization of decision making and the abolition of all exchange. The debate in the Soviet Union which centered around Libermanism, excellently surveyed by Bettelheim in this book, was about the scope of the price mechanism in a planned economy.

Bettelheim quite rightly finds much of this debate unsatisfactory, as questions were not framed in a theoretical manner. The works of Marx, Engels, and Lenin were rummaged for practical recipes on how to run a socialist economy but not for theoretical concepts needed for formulating the questions to be tackled. Bettelheim sees his task as one of constructing the theoretical concepts of an economy in transition to socialism from which he hopes can be derived technical (operational) concepts which will answer the practical needs.

One of the building blocks of such a theory is the concept of the mode of production and, inasmuch as transition from one mode to another is at issue, the dissolution of an old mode and the beginnings of a new one have also to be looked at theoretically. If Marxism is to be a systematic body of thought (or a science, as Althusser would have it) one should have a theory of all transitions, for instance, from feudalism to capitalism. Marx's discussion of the primitive accumulation of capital relates to the earlier transition and should be useful.

Taking up the basic Marxian concepts of production forces and production relations, Bettelheim's basic thesis is that in the stage of transition there is a noncorrespondence between property relations and relations of real appropriation of surplus. Thus, while the property relations correspond to collective (or at least state) ownership, real appropriation of surplus is still to a large degree dependent on the exploitation of wage labor. Bettelheim does not explicitly bring out the importance of wage labor. He deals with real appropriation in the form of profits of enterprises through the operation of commodity categories.

This noncorrespondence is, however, basic to all transitions. Only after the transition is completed do forces and relations of production match each other. Thus, the putting-out system in the early days of capitalism is

a transitional form, while factory labor corresponds to the capitalistic mode itself. In this transitional stage, politics mediates in economic life in a strategic fashion. Decisions of a technical economic nature, that is, use of prices in planning, are political decisions as to the pace at which the noncorrespondence is to be overcome.

During the transition, therefore, while the forces of production are not sufficiently developed to allow for full collective decision making, but have to be hastened in that direction, Bettelheim finds that planning which is conscious of social needs allows calculations in terms socially necessary to labor, but the imperfections of information and the inadequate integration of economic activity still justify prices and commodity categories to implement the strategic decisions made by Manning.

Bettelheim has raised the debate regarding transition to a theoretical level. This collection embodies his struggle in arriving at an adequate theoretical formulation. It is only in the last essay on the pricing problem in the Soviet Union that we see his accomplishment.

Space is inadequate for criticisms, but one must mention that economic relations are still thought of in technical terms of markets, planning by computers, integration of firms, etc. The nature of the wage labor category and the questions of economic and political democracy it raises for a socialist economy are hardly tackled at all. But Bettelheim himself has gone on from this to a political critique of the Russian, Cuban, and Chinese experiences in his later work which will soon be available in English. In the meantime, for Radicals, Marxists, and Socialists alike, this will be tough but beneficial reading.

*Interest and Ideology: The Foreign Policy Beliefs of American Businessmen.* By Bruce M. Russett and Elizabeth C. Hanson. San Francisco: W. H. Freeman & Co., 1975. Pp. xiv+296. \$10.95 (cloth); \$4.95 (paper).

Maynard S. Seider

*Easthampton, Massachusetts*

Bruce Russett and Elizabeth Hanson have presented a much-needed portrait of American big-business thinking in the 1970s. Their care, rigor, and adeptness in the use of a variety of empirical techniques give us a view of a generally conservative, hawkish group, though one apparently less apt now to choose military intervention as a national option. Unfortunately, conceptual and theoretical problems make the explanatory power of their book less than satisfactory.

Their aim is quite ambitious: to determine whether the roots of foreign policy beliefs held by American elites, specifically businessmen (we're not told if any of their sample of corporate vice presidents is female), can be found in strategic, bureaucratic, economic, or ideological considerations. The strategic consideration pertains to national security requirements; the bureaucratic one to specific organizational interests; the economic one to

economic system needs; and the ideological one to the force of public symbols (e.g., anticommunism).

Beginning with a useful chapter on the need to study the perceptions of elites by nontraditional methods, Russett and Hanson then review several varieties of economic interest theories. From these theories they develop very simple testable hypotheses (e.g., "*Businessmen will be more hawkish on a variety of foreign policy issues than will other elites*" [p. 36]), a process which continues throughout the book.

The third chapter introduces the major data set of the study: the responses, in 1973, of 567 vice presidents of *Fortune* 500 companies (industrial and financial) to 49 questions, most of which dealt with foreign affairs. The authors put many of the same questions to a sample of military officers, and they also had access to data from a 1971-72 survey of elites collected by Allen Barton and his associates at Columbia University. Their basic conclusion, that "domestic political ideology is a far more powerful predictor of foreign policy preference than is either economic interest and motivation or strategic ideas" (p. 126), is, however, probably as much an artifact of their narrow view of economic interest as it is a reflection of the data. For example, table 3.3 (p. 83) presents seven policy objectives toward "less developed countries," ordered by respondents according to their relative importance to the United States. Both the military and business samples attach the most importance to "a stable government capable of preserving internal order," even more than to "a government which retains the free enterprise system." Russett and Hanson consider the latter option to be an economic criterion, but not the former. One could easily make the case that a stable government is a necessary condition for American investment and hence should be considered at least partly an economic criterion. That businessmen and military officers may also be thinking this way is indicated by their greater concern for "a stable government" than for one "which maintains civil liberties."

The authors' restricted view of economic interest follows from their theoretical decision not to view ideological positions as class based. Rather, they conceptualize economic interest and ideology as being more or less unrelated and mutually exclusive. They understand the Marxist superstructure argument, but, in choosing to present interest and ideology as they do, they reject it. In the preface, they call themselves "non-Marxists" but not "anti-Marxist" (p. xi). They admit to a dislike for past U.S. foreign policy and disdain "value neutrality," but they fail to present a complete statement of their own theoretical position and biases, except for their avowed unwillingness to accept the *entire* Marxist system. On the whole, their orientation stands in the pluralist tradition. From their perspective all elites seem separate, if not equal, with no overlap worth mentioning.

Yet all of us have our own theories, however nonpublic they may be, and these move us in certain directions. Russett and Hanson, while trying to be open and unbiased, mistake a non-Marxist position for an atheoretical pose. This same orientation leads them to overemphasize empirical

rigor at the expense of substantive concerns. For example, one of the most intriguing findings of their content analysis of the business press (chaps. 6 and 7) indicates that the *Wall Street Journal* consistently displays more skepticism over American foreign intervention than do the other business sources sampled. Rather than inquire into the meaning of this apparent split in the business community, the authors instead get bogged down in methodological considerations, such as how much "weight" the *Journal* should be given in the total business sample.

Perhaps not surprisingly, economic reasons do not receive wide mention in the business press as cause for intervention. While the authors seem cognizant of the dangers of recognizing blatant economic statements as the sole indicator of economic motivations ("there is the possibility that economic interests, despite their inconspicuousness, were critically important, and predisposed the writers toward the strategic and ideological arguments they presented" [p. 232]), they nevertheless conclude that strategic reasons predominate (p. 239). Further, they give the benefit of the doubt to the importance of ideological considerations: "Ideological reasons were expressed with such intensity that they must be assumed to have had greater influence than is evident solely from the tables" (p. 239).

Despite these theoretical problems, Russett and Hanson have provided some necessary empirical description of a neglected area in social science. They are at their best in their historical sections (e.g., "How Liberals Become Doves," chap. 4) and in their multimethod approach to individual problem areas. For example, through survey research and correlational analysis of stock-market behavior with war-related events (chap. 5), they make a case for a business shift against the Vietnam War in 1967.

One final point: The authors have accepted research money from the Navy to help support their study. They describe the lack of restrictions from the Defense Department in carrying out their work. They are, in effect, "clean." One might dissent, though, from this bill of health. Even if the money has not corrupted the study, their use of it serves to legitimize the Navy as a source of social science funding. The Navy's interests in social science are not, shall we say, progressive, and it seems to me that any legitimization of its research here only serves to increase its power.

*False Consciousness: An Essay on Reification.* By Joseph Gabel. New York: Harper & Row, 1976. Pp. xxx+358. \$25.00.

Alan Swingewood

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The concept of false consciousness has been one of the most problematic concepts in Marxist thought. For Engels ideology and false consciousness were more or less synonymous: "Ideology is a process accomplished by the so-called thinker consciously indeed but with a false consciousness. The real motives impelling him remain unknown to him, otherwise it would

not be an ideological process at all." On this basis it would seem that only Marxism itself can escape the blight of false consciousness. However, while it is quite valid to argue for a dependent relation between ideas and social structure, it clearly does not follow that such a relationship necessarily implies error, distortion, and illusion. Lenin used the term "socialist ideology," for example, with other notions besides deception and illusion in mind. The corollary to false consciousness is true consciousness, and if all ideology is equated with illusion and error it becomes impossible to grasp the real sociological foundation of ideological thought. For it is through ideology, whether in the form of commonsense, political, or social and economic ideas and doctrines, that the individual in modern society relates to and makes sense of the social world. Contemporary society, with its complex division of labor and class structures, would be impossible without some form of ideological legitimation at the levels of government and politics as well as the more mundane level of everyday experience. It therefore follows that if ideology is defined as illusion and false consciousness—a closed, dogmatic system—its social function is minimal. The sociological concept of ideology understands it as a living force which binds the various and conflicting structures of society together into a social and historical unity. It is for these reasons that the Marxist concept of false consciousness may obscure more than it clarifies.

Joseph Gabel's study of false consciousness, first published in France in 1962, is one of the few attempts to analyze in some depth the exact meaning and sociological significance of the concept of false consciousness within the framework of what he calls "open Marxism." His starting point is the assertion that "false consciousness is not merely central to the Marxian doctrine, it constitutes its entire framework; a great many—if not all—of the problems that Marxist thought poses are, in the last analysis, problems of false consciousness" (pp. 3–4). It is important to note that Gabel does not really defend this argument in terms of an analysis of Marx's own writings or indeed of the Marxist tradition in general but relies almost entirely on one single text, Lukács's *History and Class Consciousness* (1923), and while reference is made to philosophers such as Bergson and Heidegger it is Lukács's ideas which dominate.

What, then, is Gabel's concept of false consciousness? Briefly, he argues that it is consciousness which has lost all real contact with the social world; the social world is constructed in thing-like terms as an external force which dominates the individual, rendering him passive and incapable of praxis. False consciousness, then, is equated with reification and alienation, key terms in Lukács's *History and Class Consciousness*. Gabel goes on to show how the alienated individual has lost all sense of the dialectical character of the social world, especially his grasp of the roles played in it of time and history. Thus, "False consciousness and ideology can therefore be defined as forms of sub-dialectical perception of social reality" (p. 42). Like Lukács, Gabel defines all ideology as false, including Marxism itself and presumably Gabel's own brand of "open Marxism." Indeed, from Gabel's text it is extremely difficult to know what he means by the opposite of false consciousness, what he calls "de-reification," since

he never states the criteria by which a true consciousness can be judged; he is less interested in the scientific aspects of Marxism (Marx's "positive science") than its philosophical elements, and he thus makes no attempt to relate the concepts of alienation and reification to social structure. Gabel remains on the level of vague generality as long as he is discussing ideology and false consciousness as sociological phenomena.

But the main point of the book lies in his extended analysis of schizophrenia as an exemplar of false consciousness and as an individual rather than collective phenomenon. A schizophrenic is identified as a person "dominated by spatiality" (p. 80), lacking any real grasp of time and history, of the past, the present, and the future; there is a loss of the ability to distinguish between subject and object; the individual feels crushed by the world; he has become a mere thing and object.

Of course, in a general sense there is much truth in these arguments, but the real problem lies in Gabel's confusion between a mental illness and a totally dehumanized phenomenon such as reification. Thus he quite rightly notes the reification embedded in the role of the official within the Nazi concentration-camp hierarchy but confuses this popular concept of schizophrenia with its scientific, clinical usage: The Nazi officials were not mad or ill in the same way as schizophrenic patients who are certainly not "sub-human people" (p. 133). Gabel's identification of schizophrenia, reification, ideology, and false consciousness is ultimately ludicrous; to suggest that ideologies have a "schizophrenic structure" and possess an "autistic nature" is to misunderstand the ways in which ideologies actually work in the modern world—as highly flexible structures whereby the individual understands the social world and acts within it. It is the sociological structure of ideology, therefore, which gives it a real content and a positive social function. In this sense ideologies contain both true and false elements, and it is a travesty of Marxist thought to conflate the highly complex notion of ideology with such an extreme form of mental illness as schizophrenia.

*Ästhetik und Soziologie um die Jahrhundertwende: Georg Simmel.* Edited by Hannes Böhringer and Karlfried Gründer. Studien zur Literatur und Philosophie des neunzehnten Jahrhunderts, Band 27. Frankfurt am Main: Vittorio Klosterman, 1976. Pp. x+281.

Kurt H. Wolff

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This is one of the truly important books about Simmel. The contributors approach him and aspects of his work from various angles but always seriously and interestingly. There are three parts: six papers, with excerpts from the discussion, that were presented at a 1973 meeting on Simmel, sponsored by the Fritz Thyssen Foundation (also the sponsor of the series in which this volume appears); three additional contributed papers; finally, some biographical and bibliographical documents.

Karlfried Gründer, one of the two coeditors, writes that Simmel was chosen as the most attractive subject for the purpose of extending the investigations of the Thyssen Stiftung from the 19th century into the 20th. (Indeed, in his memoir of Simmel, which is not mentioned in this volume, Georg Lukács calls him a typical phenomenon of transition, though not only in a historical sense.) In an essay on the "contours" of his thought, Michael Landmann continues his devoted study of Simmel, providing a short piece that is nevertheless perhaps even more comprehensive as an overall map than Gertrud Kantorowitz's (translated in Kurt H. Wolff, ed., *Georg Simmel, 1858-1958*), of which, of course, he had the benefit. (But Landmann shares Simmel's obtuseness about the life experiences of types of people outside their own circles: "While according to Marx," he writes, "only the abolition of 'alienation' will reestablish full individuality, in the Simmel of the *Philosophy of Money* it is precisely the alienations that begin in the modern period which bring forth the individual belonging to that period" [p. 7]: Landmann raises no question about this misunderstanding of Marx.) The worthwhile general discussion following his paper touches on, among other topics, Simmel's relations with Stefan George and Rilke (as do other contributions in part 3), on Hegel, Marx, Kierkegaard, and the philosophy of life.

In an essay on Simmel and Rodin, J. A. Schmoll gen. Eisenwerth contrasts Simmel's and the art historian's language when discussing art and artists. In several articles on Rodin (perhaps the most important of which is reprinted in part 3 for the first time since its original publication in 1902), Simmel argues that the history of sculpture ends with Michelangelo and begins again only with Rodin, who symbolizes the "Heracлитism" of modern life. Schmoll provides insight into the discussion of art around 1900; especially poignant is Trotzki's remark in 1911 that "Simmel's 'new soul' is in reality the soul of metropolitan intellectuals" (p. 36). Again there follows a fruitful discussion.

In "Aestheticism and Sociology in Georg Simmel," Sibylle Hübner-Funk presents both a useful summary of Simmel's sociology and a Marxist, "sociology of knowledge" critique. According to Hübner-Funk, his sociology cannot overcome aestheticism. Hübner-Funk's paper provoked an extensive discussion, including a sensitive critique by Lenk. Hübner-Funk includes excerpts from Simmel's *excursus* on the sociology of the senses (translated in Park and Burgess, *Introduction to the Science of Sociology*), from Walter Benjamin's "Der Flaneur," and from Benjamin's and Adorno's correspondence on Simmel, and he clarifies observations on the difference between an aesthetic sociological perspective and a sociology of art. Underlying the discussion is the question, pointed especially at Hübner-Funk, of what lends itself to and what withstands sociological analysis.

The next two papers are more purely sociological. In "Georg Simmel's Significance for the History of the Role Concept in Sociology," Uta Gerhardt presents an inventory of three approaches to "role" actually taken by Simmel, but she does not consider the problem of where the role ends and the person or individual begins; the ensuing discussion gives a



• good picture of the contemporary conceptualizations of "role." Julien Freund's "The Third in Simmel's Sociology" "codifies" Simmel's observations on the triad and hints at characteristics of it that do not, as they do in Simmel, depend on comparison with the dyad; some observations in the discussion could be developed into an analysis of the social scientist as "the third." To end part 1, Hannes Böhringer, coeditor, examines in his analysis of "traces of speculative atomism in Simmel's formal sociology" his usually neglected beginnings, which were influenced by Spencer, Fechner, and *Völkerpsychologie*.

In "Money or Life: A Metaphorological Study of the Consistence of Georg Simmel's Philosophy," Hans Blumenberg develops Simmel's philosophy of money by comparing it with his philosophy of life. Of special interest and timeliness is Blumenberg's juxtaposition of money to the traditional philosophical problems of omnipotence and immortality. Simmel's influence on Jaspers is traced by Hanoeh Tennen in a methodologically exemplary and penetrating paper which raises vastly important questions. Donald N. Levine, Ellwood B. Carter, and Eleanor Miller Gorman's "Simmel's Influence on American Sociology," the only paper in English, was, fortunately for American readers, also published in the January and March 1976 issues of *AJS*. It is a boon for the historian of American sociology. The authors distinguish three types of influences Simmel has had (they plausibly explain them by reference to historical circumstances in general and the developmental stages of the discipline in particular): helping to define its subject matter, providing an analytical perspective, and articulating novel topics and propositions. They give excellent histories of the treatment of the stranger, social distance, the metropolitan mentality, small groups, interpersonal knowledge, secrecy, secret societies and related phenomena, conflict, and exchange. The person or human being who was interested in these and many other phenomena and problems unfortunately and characteristically remains unexamined; products are treated as if they were of interest only detached from their producer. Nor is there (but I know no other place where there is) anything on Simmel as a phenomenologist (Alfred Schutz is mentioned only as mediating between him "and a recent group of sociologists of 'everyday life' which includes Harold Garfinkel, Aaron Cicourel, and Jack Douglas" [p. 194]).

Part 3 opens with Simmel's inspired 1902 essay on Rodin and a previously unpublished, brief but delightful fragment of "The Fairy Tale of the Color." There follow two letters he wrote in 1897 responding to a question about his views on Zionism: Depending on the point of view, he answered, Zionism was either a utopia or a crime—he seemed blinded by his liberalism, as were so many Jews and non-Jews, even into the time of Hitler. The letters make one tremble—*post factum*, one hopes. In a beautiful (but unfortunately undated) dedicatory epistle to Bernhard Groethuysen, Charles DuBos, a student of Simmel, who admired him, recalls his student days with him in Berlin. Hans Simmel, Simmel's only son, provides excerpts from his memoirs which are extraordinarily rich on his father as a person. This is new and illuminating material, particularly

in regard to Simmel's economic situation, his relation to Stefan George, Rodin, and Bergson, the unsuccessful invitation to join Heidelberg University, his humor, the impact on him of World War I, and his last years in Strasbourg. At least these pages (preferably in a more complete version) and Simmel's paper on Rodin should be made available in English. The book ends with two short pieces by Michael Landmann on Ernst Bloch's and Arthur Stein's memories of Simmel and bibliographical gleanings by and on Simmel from the last few years.

For the student of Simmel and his period, this work is indispensable.

*The Sociology of Karl Mannheim: With a Bibliographical Guide to the Sociology of Knowledge, Ideological Analysis, and Social Planning.* By Gunter W. Remmling. Atlantic Highlands, N.J.: Humanities Press, 1975. Pp. xv+255. \$15.00.

John Horton

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The reigning technocrats of sociology have never completely silenced Karl Mannheim. He continues to speak from the humanist margins and beyond the little empires of academic specialization to those larger questions of meaning and politics which properly constitute what C. Wright Mills called "the sociological imagination." In his relatively short and lively essay on the life, times, and work of Mannheim, Gunter Remmling reminds us that Mannheim was often abundantly possessed of the sociological imagination. Throughout his adult life, spanning revolution, depression, fascism, and war, he continually posed the big questions, although he frequently gave unsatisfactory answers.

In response to the intellectual and political conflicts of Weimar Germany, Mannheim's *Ideology and Utopia* (London: Routledge & Kegan Paul, 1936) posed the problem of meaning and valid knowledge in a context of doubt. His unconvincing solution was to push historicism to the limits and look for solace and synthesis in the efforts of detached intellectuals armed with reason and the sociology of knowledge. But in Germany Fascists were armed with guns; there was no free-floating space for intellectuals between fascism and antifascism. Not surprisingly, once he became a refugee in wartime England, Mannheim abandoned his original formulation in the sociology of knowledge and the abstract problem of meaning for a more fundamental problem of capitalism—irrationality, the inability to plan for the satisfaction of social needs. Impressed with the fact of continuity and the possibility of reform in England, Mannheim concluded that bourgeois democracies could survive only through social planning and educating the next generation to "substantial" rationality and commitment to ultimate values. From being an extreme relativist, Mannheim thus became a strong spokesman for a spiritualized welfare state as the alternative to laissez-faire capitalism and socialism. He diagnosed the problem correctly but, ever the detached

intellectual without a conscious class standpoint, theory of history, or concrete agent for planning and change, he looked naively to the leadership of intellectuals and well-doers now armed not with the super-relativistic sociology of knowledge but with pragmatism and Christianity. However provocative Mannheim's sociology of knowledge, it ended precisely where it began, in the clouds of idealism.

Such at least is one evaluation that can be drawn from Remmling's essay. Although Remmling never quite sides with the "left" or "right" critics of Mannheim, he gives us a fair assessment of the man as reformer trying to add a dash of Anglo-American pragmatism to the utopian dreams of Comte and St. Simon. Mannheim's agents of "orderly progress" were intellectuals and priests, ideas and values pragmatically fitted to conditions and possibilities, *not* classes, not ideologies, and not utopias. Yet with his implied criticism, Remmling remains basically sympathetic to Mannheim's project. The book is written in the style of the sociology of knowledge. We are made to understand Mannheim in relation to larger structures of philosophies and politics. The resulting book is an essay on and a demonstration of the sociology of knowledge and a useful summary of Mannheim's work classified into four stages, stretching in time from 1918 to 1947 and moving from such interests as philosophy and the sociology of knowledge to the sociologies of planning, religion, values, education, and power.

Remmling's essay on Mannheim constitutes slightly over 50% of his book. The rest is a less-than-satisfactory bibliographical guide to Mannheim, the sociology of knowledge, ideological analysis, and social planning. Though containing much of value, the references are limited mainly to the years before 1970. The selection also suffers from a narrow definition of the field. There are few references to planning in socialist countries, which in fact have the social conditions which make planning possible. There are few references to the development of the sociology of knowledge made in academic circles by critical theorists, ethnomethodologists, and structurally oriented Marxists, or in more politically involved circles by radicals trying to cope with ideology as it affects class and is constituted by racist, sexist, and elitist practices. However, the scope of the sociology of knowledge can be defined in many different ways; all in all Remmling's definition remains close to that of Mannheim. This is the strength and weakness of his book.

*Max Weber's Theory of Concept Formation: History, Laws, and Ideal Types.* By Thomas Burger. Durham, N.C.: Duke University Press, 1976. Pp. xviii+231. \$9.75.

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This book is yet another attempt to address one of the standard questions in the history of sociological thought—the meaning and in-

interpretation of Max Weber's methodological logic, particularly the ideal type. Burger's attempt at sociological *satori* in contemplation of the master's classic *koan* achieves an enlightenment of mixed results, but overall it is a valuable contribution.

The core of his approach is the assertion that Weber's seemingly unsystematic methodological writings make sense only if one realizes that the domain assumptions of his methodology depend almost entirely on the philosophy of science of Heinrich Rickert. "Since almost all existing interpretations of Weber's methodological writings have failed to see (or to take seriously the thought) that the latter's unity and inner coherence can be found in Rickert's philosophy of science, they have frequently not been able to reconcile all of Weber's statements with each other" (p. xv).

Chapter 1 is an analysis of Rickert's methodological writings, specifically his theory of concept formation in the context of his rationale for history as a science. Chapter 2 discusses Weber's treatment of the same issues. The central claim is that Weber's methodological writings make sense only when it is realized that they are an answer to the question of what justifies history as a valid scientific undertaking. Burger argues that this central question and Weber's answers derive directly and completely from Rickert's thought. The third chapter treats aspects of Weber's methodology that were not specifically addressed by Rickert, but which he claims still flow from Rickert. The main focus is on the genesis of the ideal type. The final chapter is an interesting attempt to show the relevance of the ideal-type approach to concept development in modern sociology by reformulating Weber's approach in terms of "models."

There are valuable insights in this book. Among them is the treatment of Weber's development of ideal types as a response to specific historical research problems. And there are some valid clarifications of numerous aspects of the ideal-type approach, such as the emphasis on inductive development of ideal types and the realization that ideal types are not pretheoretical concepts, but contain propositions about relations among variables. Yet many of these important clarifications exist elsewhere in recent literature, and many of Burger's important insights about the ideal type do not depend on his analysis of Rickert. There are also some bothersome inaccuracies and omissions that detract from the generally sound and well-grounded logical analysis.

For example, in his determination to show complete convergence with Rickert, Burger makes a weakly supported and misleading interpretation of one of Weber's basic tenets of objectivity in the cultural sciences. Starting with the interpretation "that Rickert postulated the existence of absolutely valid values which can serve as viewpoints for historians" (p. 87), he tries to argue that all other interpreters of Weber are wrong and that, in fact, Weber accepts absolutely valid value viewpoints from which history can be interpreted. This is clearly erroneous, given Weber's existential insistence on the irreconcilable conflict of ultimate value viewpoints in human experience. As a result, Burger misinterprets Weber on a number of specific aspects of the general issue of objectivity. For example, he states, "Weber accepts the ideal of absolutely valid historical

knowledge, although with the qualification that it must always be tied to special viewpoints, and must therefore be one-sided" (p. 88). This does not imply, as Burger suggests it does, that Weber accepted absolutely valid values on which to base historical analysis. On the contrary, Weber recognized that human attempts at complete objectivity in pursuit of scientific truth are not infallible. Once values have legitimately selected the historical object of study, they cannot be totally prevented from illegitimately affecting the scientific investigation.

The exclusive focus on Rickert's philosophy of science also obscures important substantive theoretical concerns that influenced the formulation of the ideal-type method, in particular, the origins of the ideal-typical approach in Weber's critique of social evolutionism, as Guenther Roth has shown in his essay, "The Genesis of the Typological Approach" (in *Scholarship and Partisanship: Essays on Max Weber*, by Reinhard Bendix and Guenther Roth [Berkeley: University of California Press, 1971]). The author might have achieved a better balance with respect to this type of substantive influence if he had been more open to attempts to interpret Weber's ideal-type approach in the context of its actual use in his empirical and historical sociology, as Stephen Warner has recently done in his Ph.D. dissertation, "The Methodology of Max Weber's Comparative Studies" (University of California, Berkeley, 1972). Instead, he explicitly rejects such an approach, and the book suffers as a result.

In sum, the book is worthy of a critical reading. There is much of value in it despite some inadequacies. Unfortunately, however, its insights are buried in an unnecessarily pedantic style that out-Webers Weber.

*The Legacy of Albion Small.* By Vernon K. Dibble. Chicago: University of Chicago Press, 1975. Pp. x+255. \$15.00.

Charlotte A. Vaughan

*Cornell College*

Although Albion Small is best known today for having founded the first department of sociology (1892) and the *American Journal of Sociology* (1895), it is not with these works that Vernon Dibble deals primarily in this recent addition to the Heritage of Sociology series. His concern lies with Small's thought, attempting to explain Small's stress on sociology as an empirical discipline and demonstrating the sources and internal logic of Small's fusion of scientific sociology and ethics. He also considers why the one has survived and the other has not. Close to two thirds of the book is devoted to Dibble's commentary, about one fourth to primary readings from Small, and the remainder to extensive (and useful) end notes and a short index.

Dibble makes the case that Small's political ideology and pedagogical philosophy led him to turn away from the established discipline of history to the new discipline of sociology. To paraphrase Dibble's argument, since Small was against both laissez-faire capitalism and radical alterna-

tives, he wished to turn out students who were both reformist and centrist. The way to accomplish this was to engage them in empirical study of the total society. "For the observation of actual social conditions both prevents complacency and instructs students in the complexities of society which utopians leave out of view" (Dibble's words, p. 20). To Small, being "objective" about society inevitably meant being holistic and also perceiving the gradualist nature of social change. Sociology as the comprehensive empirical social science would provide the knowledge for proper reform.

Dibble then dissects Small's views on sociology and ethics. To paraphrase again, Small believed that all ethical judgments are made in relation to particular circumstances and ends and are hence inevitably relativistic. However, the more circumstances and ends are taken into account, the closer ethical judgments approach to resting on universal standards. Sociology provides the content for ethical forms objectively by taking into account more and more of society's complexities and identifying the basic human ends that are displayed. Small identifies six "interests" as inherent human ends; interests in health, wealth, sociability, knowledge, beauty, and rightness. These ends contain within them ethical standards: The "good" is the satisfaction of these ends in larger amounts and balanced proportions. Thus, sociology's province includes providing ethical standards, since they inherently flow out of its observations, and indicating ways in which these standards can be further realized in the totality of the "social process." As Dibble sees it, Small's thought is logically consistent in fusing sociology and ethics through the "telicist ontology" (p. 92) that he accepts.

Dibble roots Small's views of sociology in his small-town background, his strong Protestant religiosity, his political views, and his acceptance of the then-prevalent role of university professors in providing moral leadership. He identifies four possible factors in later abandonment of Small's fusion of sociology and ethics: the impolitic nature of his claim that sociology is the totalistic social science; the increasing attachment of sociology to centers of power, with less need for moral sanction; the general shift away from Small's reformist yet centrist political position; and the shifting position of universities toward disinterested inquiry. While Small's insistence on sociology as an empirical discipline led to academic respectability and survival, his fusion of sociology and ethics was not historically viable.

The book is a contribution toward making accessible Small's thought and writings. The selections from Small include three letters, one autobiographical, the others proposing to President Harper of Chicago the need for statistics courses in sociology and the establishment of a journal of sociology; the chapter from his *General Sociology* entitled "Interests"; and two addresses, "The Social Value of the Academic Career" (1906) and "Some Researches into Research" (1924). Though relevant to this book, Small's essay "The Significance of Sociology for Ethics" (*Decennial Publications of the University of Chicago*, vol. 4 [Chicago: University of Chicago Press, 1903]) is not included. In addition to the primary read-

ings, Dibble piles lengthy quotation (from archival and other sources) on lengthy quotation throughout his text, stating that they are necessary to give the flavor and substance of Small's thought. However, more is quoted than necessary to attune the reader to Small's style or to sustain the argument of the book. In general, the book seems more complicated than it need be. Dibble agrees with Harry Elmer Barnes that Small's lasting influence on sociology came through his work in institutionalizing it in the United States; he could have developed further this aspect of Small's career.

*Adam Smith's Sociological Economics.* By David A. Riesman. New York: Barnes & Noble, 1976. Pp. 274. \$21.50.

T. D. Campbell

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The bicentenary of the publication of Adam Smith's *Wealth of Nations* has been celebrated vigorously enough to justify the claim that there is a wide and resurgent interest in Smith's economic theory. This assures a welcome for any new study of Smith's work, particularly one which seeks to place his famous economic doctrines in the wider context of his social and political theory. We already have one major recent book covering the whole range of Smith's economics (S. Hollander, *The Economics of Adam Smith* [London, 1973]) and Riesman does not seek to emulate the comprehensiveness of that important work. Instead he sets out, as the title suggests, to demonstrate the sociological nature of Smith's economics in contrast to what he takes to be the standard overspecialized approach of present-day economists. By this he means that Smith's work was interdisciplinary and historical and—more controversially—that Smith was an economic determinist. The author makes it clear that he regards these characteristics as neglected virtues in economic theory and gives the impression that one aim of the book is to enlist the authority of the founder of economics on behalf of a more adequate, because more sociological, approach to that science.

The method of the book is to build up a picture of Smith's views by means of multiple quotations from and summaries of his writings as they relate, first to his methodology, and then to themes such as conduct and character, consumer behavior, social class, and the state. Although the quotations, often taken from very different contexts, are piled one on another, the result is not as unreadable as it sounds and the reader is given a very full and arresting picture of Smith's views on a variety of topics. There is, though, a lack of analytical backbone and critical discussion and sometimes the essentials of Smith's moral and economic systems get lost in a mass of detail. Nor is this a book for the historian of ideas who is interested in Smith's place in a developing intellectual environment and the significance of his conceptual scheme for his own time.

Many anachronistic comparisons, which may be of help to the general reader, will annoy the historical specialists.

Nevertheless this book will further the ongoing task of combatting the erroneous practice of reading back into Smith the narrow economic individualism of his more specialized successors, and sociologists in particular may find Riesman's attempt to present Smith in the tradition of Durkheim and Weber illuminating, although few of the comparisons with these authors are developed very far. There are, however, some distortions and omissions in the generally sound exposition of Smith's economic theory to which the reader should be alerted.

Riesman, correctly I think, looks to Smith's posthumous *Essays on Philosophical Subjects* (1795), especially "The History of Astronomy," for evidence about Smith's methodology. In a rather long and rambling chapter he brings out the Newtonian ideals which Smith set himself and stresses the psychological or aesthetic criteria of scientific truth (coherence, simplicity, and familiarity), which Smith used to explain scientific development. But the stress which Smith placed on the need to accommodate and predict detailed observations gets rather lost. There is also a tendency to overemphasize the extent to which Smith accepted customs as the overriding criterion in aesthetics, and hence in science also, and to underemphasize the place of final causation in his scheme, particularly as it is outlined in the *Moral Sentiments*, although indications are given that final causation is to be interpreted in functionalist terms. The chapter does bring out, however, that Smith had a sophisticated and developed scientific methodology which disposed him to pay attention to the details of human behavior as they form part of a wider system whose internal mechanism it is the task of the philosopher/scientist to exhibit for our admiration.

The account of Smith's moral philosophy is likewise sound but partial. In accordance with the purpose of his book, Riesman stresses that social acceptability is Smith's key to the understanding of moral behavior. He demonstrates how, in Smith's view, the mechanisms of sympathy lead to the creation and maintenance of social norms. For Smith judgments of moral propriety can ultimately be traced to the observer's capacities to imagine himself in the situation of the agent and to see whether his resultant "sympathetic" sentiments accord with those of the agent and to the desire on the part of both observer and agent to attain harmony of sentiments. Riesman does not stress, however, that the observer also seeks to sympathize with those who are affected by the agent's actions and tends to share the gratitude of those who are benefited and the resentment of those who are injured by the agent. It is in fact sympathy with the resentment of injured third parties that is the basis for Smith's explanation of the rules of justice, and Riesman's neglect of this aspect of Smith's theory leads him to underestimate the importance of Smith's analysis of justice as a bridge between his moral and economic theories. The relation between the *Wealth of Nations* and the *Moral Sentiments* is not adequately demonstrated as long as the latter is not seen as explaining the basis of the requirements of justice which form a framework for



economic behavior as it is analyzed in the former. Further, if Riesman had paid more attention to what Smith says about the strong and universal sentiments of resentment felt by those who are injured in certain fundamental ways, he might have balanced his exposition of Smith's treatment of moral diversity with an account of his treatment of the more persistent and unchanging aspects of human behavior. Also, despite the many examples he cites of Smith explaining the relativity of moral codes by reference to differences of economic circumstances, it is an exaggeration to say that, when Smith spoke of the spectator imagining himself in the situation of another person, he was *always* thinking of that situation in economic terms. Indeed, it is part of the burden of Riesman's book that the economic dimension of social situations is not perceived by the observer in isolation from its wider context.

Perhaps the most successful part of the book is its thorough presentation of Smith's account of consumer behavior in sociological rather than narrow economic terms. Men seek wealth for the social status it brings and not simply out of economic necessity. Moreover, what counts as economic necessity is, for Smith, relative to the expectations of particular classes in particular societies. This is well developed over three chapters and makes an impressive case for the social dimension of Smith's economic theory, but not I think an overwhelming argument for the assertion that he is a thoroughgoing economic determinist. Indeed much of the evidence presented can be taken as pointing to causal influences going the other way, that is, the influence of religious, military, and moral factors on economic behavior.

Less happy is Riesman's claim that Smith thought the laborer had a subjective sense of exploitation. Much has been made of Smith's anticipations of Marx's view of alienation, and it is true that Smith did point out some of the mental and spiritual disadvantages of a developed division of labor. It is also true that Smith thought that the property of the rich had to be protected against the envy of the poor. But this does not amount either to a Marxian theory of exploitation or to its subjective counterpart, the existence of feelings of alienation of exploited individuals. Indeed it is only by a conceptually sloppy amalgamation of alienation, anomie, and envy that the thesis has any plausibility.

A final chapter on the state gives a fair summary of Smith's less-than-dogmatic hostility toward state intervention in the economy, although in view of all the author and others have said about the social and legal institutions whose existence is presupposed in the *Wealth of Nations*, it is surprising that he does not qualify his assertion that, in Smith's view, a healthy economy "depends on 'human inclinations' rather than 'human institutions' " (p. 196). Indeed, the purpose of much of Smith's work is to demonstrate the origins of the latter in the former.

As a whole this book gives us a fair impression of the wide range of Smith's economic theories and makes a good case for their sociological nature, although not, I think, for his economic determinism. This claim, like others in the book, is not formulated with sufficient analytical rigor to provide a satisfactory basis for the treatment of the issues in question.

But, despite these conceptual deficiencies, Riesman's treatment of Smith's economics is still very much along the right lines.

*Blue Collar Community.* By William Kornblum. Chicago: University of Chicago Press, 1974. Pp. xvii+260. \$9.95.

Ida Susser

*Columbia University*

In *Blue Collar Community*, William Kornblum attempts to answer questions about working-class America that have been frequently raised but seldom tackled in any systematic way. From the vantage point of a participant observer in a steel community on the South Side of Chicago, he describes local-level politics, the formation and transformation of social groups, the rise of local leaders, and the shifting circles through which people move. Kornblum familiarized himself with ward politics, present-day union politics, and the history of union struggles in the area. A major preoccupation of the research is with the formation and interaction of ethnic groups and in particular the conditions under which ethnicity becomes a significant factor in political action.

During his two years of residence in South Chicago, Kornblum's perspective on working-class behavior underwent several changes. He entered the neighborhood with the purpose of studying immigrant Slavs and spent his initial six months among people of Serbian and Croatian background. But he found it impossible to study a particular ethnic group outside the broader context of different ethnic groups. In the attempt to understand community relations, he now found it necessary to examine the particular industrial setting of the South Side.

Two themes thread through Kornblum's analysis. The first is that ethnicity is an important political tool manipulated in political competition for different ends. Ethnic solidarity is seen as a symbol developed and nurtured by politicians to assure their access to political office. Ethnicity is not, therefore, assumed as a given condition. Thus, for example, the factions within the Mexican group were temporarily united in the pursuit of specific common goals. However, as Kornblum makes clear, support of people from only one ethnic group is not enough to maintain political power. From the start, politicians must form coalitions with other groups and attract support from people with different ethnic backgrounds.

Kornblum's picture differs from the static view of ethnic territories and competition often presented in descriptions of American neighborhoods with well-defined ethnic boundaries. He emphasizes the shifting allegiances and coalitions between groups, as well as the formation and disintegration of these groups.

Kornblum's second major theme revolves around the effect of the structure of the steel mills on the processes of interaction in the communities surrounding them. As a foreman in one of the mills, Kornblum

describes the different job classifications, the work groups formed, and the kind of cooperation required. He traces the history of immigration and settlement and its effect on ethnic divisions within the work force. He describes the opportunities for social interaction in the factory, the knowledge of alternative job possibilities, and how they may help workers to advance. He also suggests that the lack of such opportunities may hinder the black workers from moving beyond the most unstable types of jobs. Moreover, black workers are at a disadvantage because they are forced to live further away from the mills and therefore do not have the neighborhood connections common to members of other ethnic groups.

However, Kornblum does not mention employer discrimination against black workers who applied for the better jobs, nor does he consider the effects of management policy on the ethnic distribution of workers. He documents historical instances where management's stated intention was to engender conflict among different ethnic groups within the plants, in efforts to combat unionism. However, he does not discuss the possibility that present-day ethnic divisions might be related to the employment policies of management.

After the description of the locally defined neighborhoods, the ethnic territories within them, and work organization at the steel mills, Kornblum turns to local-level politics. In the unions, he analyzes the formation of ethnic coalitions as they are affected by the division of labor, territorial segregation, and generational splits. He describes the way the original Slavic political coalitions maintained their power through their strong neighborhood connections. He also documents the slow climb to power of a black union leader who managed finally to win support from sections of both the Slavic and Mexican populations in the plant. He argues that the blacks had to build their own ethnic solidarity, just like any other group, in order to participate in political competition and to form coalitions with the other factions in the plant.

Kornblum illustrates a similar process in the power conflicts between ward politicians. He argues that in both union and ward the necessity to generate wider political support leads to calls for solidarity according to several forms of status.

Kornblum's contribution has its limitations. One problem with his approach to politics is a failure to analyze campaigns and coalitions beyond the apparent statuses being mobilized. He would add substance to his analysis and supply material for future theoretical developments if he were to delineate more carefully who belongs to which group (either ethnic or neighborhood groups), who actually responds to these calls for solidarity, and what are their associated characteristics, such as income, job security, and educational background. Kornblum might have provided a more detailed economic breakdown of voters in different campaigns or in the status groups upon which he relies as an explanation. By examining issues which appear to stir people in each campaign, he could have attempted to correlate voting patterns with the effect of major issues on people with differing ethnic and neighborhood allegiances. However, he provides few examples of such issues.

Kornblum maintains that work in the mills is both a central feature of his South Chicago area and basic to union politics. He might have illuminated the controlling factors for the shifting ethnic and neighborhood allegiances which he documents if he had considered work-related problems as possible issues around which factions and alliances developed. If he had examined such issues as economic hardship, compulsory overtime, or even management-union relations or contract negotiations, he might have found that the ethnic divisions in the work force have contributed to the masking of issues connected with employment through calls for ethnic solidarity.

Kornblum sometimes fails to take the necessary second step. He explains the behavior of political *leaders* in situational terms, as the manipulation of different status identities in the pursuit of power. However, for political *followers* his analysis does not consider material or political interests and he relies on symbols of solidarity, status, and (although he does not use the words) "primordial ties" as explanations for their behavior. For Kornblum there appear to be two types of human beings: the economic and political person who seeks his own advantage no matter what his background or his neighborhood, and the person who simply votes according to traditional territorial and national divisions.

Also, a study of local-level politics should include a discussion of substantive issues and, where possible, the voter breakdown according to those issues, whether or not they become publicly voiced by political leaders; *Blue Collar Community* does not do so. A second aspect fundamental to considerations of local-level politics but not discussed by Kornblum lies in the area of informal political protest. Wildcat strikes, parents organizing for adequate day care and education for their children, and church and other groups forming to prevent changes in the neighborhood and to stop or initiate federal projects have provided the focus of much political activity in the American city, at least in the past two decades. A description of these groups and their interaction with ethnic and territorial solidarity would have provided a more complete view of local-level political processes and the pressures under which they operate. Information about such informal protest groups and an accompanying analysis would have provided a useful contrast to Kornblum's description of the coalitions and alliances vying for formal political office.

In sum, *Blue Collar Community* fills some of the gaps in our understanding of working-class life. It incorporates the bonds developed at work, as well as in the organization of politics, to arrive at a view of ethnicity as socially constructed out of a diverse array of primary-group loyalties. It dispels illusions of the stability of American ethnic groups.

But Kornblum could have gone even further in the analysis of the organization, creation, and reproduction of the social relations which characterize the urban community. His analysis is limited by such loose and unexamined concepts as ethnic and territorial solidarity. These two must be seen as consequences as well as causes. In the last analysis the divisions Kornblum describes cannot be understood without reference to a much broader analysis of the political and economic pressures that

impinge upon and threaten the community itself. It is in the systematic linkage of what happens outside the community—in the steel industry, at union headquarters, in national as well as local politics, and so forth—to what happens within it that Kornblum's work is weakest. Like so many community studies, Kornblum tends to isolate artificially the South Side from the broader social, economic, and political contexts reflected in its particular patterns of organization.

*Constructing Social Life: Readings in Behavioral Sociology from the Iowa School.* Edited by Carl J. Couch and Robert A. Hintz, Jr. Champaign, Ill.: Stipes Publishing Co., 1975. Pp. vii+292.

Murray Melbin

*Boston University*

As we become aware of how complicated and conditional social interaction is, we shift our approach to the subject. Gone are the global theories, the behavior category lists claiming exhaustiveness, and the simplistic hypothetical links between motives or norms and actions. The focus is narrower now. Researchers train their intellectual energies on a hopefully manageable portion of the whole. This book of essays by colleagues at the University of Iowa begins with the question, "How do two or more persons organize their behavior to do something together?" That powerful question heralds a sizable task. So it is made a background theme, and many of the authors choose to focus on only the initial stages, the formative moments, the openings, of concerted action.

The first part of the answer to the question is that concerted behavior happens directly through sensory channels such as seeing, hearing, and touching, through such media as written messages, clocks, and telephone communication, and through the assignment of representatives—that is, spokesmen—to deal with the social environment. A number of the essays in this collection are expository surveys of a selected interactive mode. There is one paper on touch, another on the impersonal synchronizing power of clocks, and several dealing with the matter of selecting a representative to act on behalf of the group. The second part of the answer to the question is that a *structured process* emerges in social interaction. Here the analysis of the formative stage of interpersonal action results in a sequence of phases being identified, and these elements of openings are tagged with an array of labels, some newly coined. The terms include: "accountable relationships," "bilateral accountability," "coordinated behavior," "congruent functional identities," "coacknowledged prescriptions," "committed relationships," "copresent social context," "interactive context," "internal solidarity," "solidarity responsiveness," "shared focus," and "reciprocal attention." Their kinship with ideas of symbolic interaction is apparent, but explicit definitions of these terms are scarce in

the text. The reader is left to puzzle out which concepts from one essay match different concepts in another essay.

The theoretical background and approach used in these papers rest on basic ideas of G. H. Mead, Durkheim, and Goffman. For example, the authors are consistent in following the strategy of formulating their descriptions of social interaction to account for simultaneous behavior by two or more persons, rather than referring to a ping-pong type of social sequence. The theme of a probabilistic future in the human mind is also part of symbolic interaction theory. It includes Mead's idea that people anticipate a generalized reaction from others to their conduct and extends to how relationships develop via awareness that individuals will act in unison in a future encounter. The past is the basis for projecting people's future intentions and plans, and "the construction of a highly responsive relationship is often dependent upon prior construction of and commitment to a shared future which provides a secure context for mutuality" (p. 87). Thus the role of probability thinking in social conduct is brought to the fore. It is an aspect that deserves more attention than it has received. For ordinary persons have shown themselves to be more probabilistic than we usually propose (except in ideas about information processing) in our concepts of human behavior.

A number of propositions are set forth about the conditions under which coordinated social action will occur. All refer to the fine-grained phases of the onset of interaction. Does it matter? Does it add knowledge? The significance of the distinctions is that *different* forms of breakdown would follow from faults in different phases of this progression. If the various conditions for mutuality do not differ in their consequences and if those unfulfilled conditions all result in the same types of misunderstandings, missed achievements, or arguments between the parties involved, then the phases need not be distinguished. We could specify the conditions for one broad phase, the opening or formative one, and accomplish as much in our theoretical explanation. The propositions are not converted into testable form in the book. In another instance, the idea that people usually stick with the representatives they choose (chap. 11) is studied, but the manipulation of the independent variable went awry and the findings were difficult to interpret. The hypothesis that "the greater the bondedness [between representative and constituents] the greater the likelihood of success [of the representative] in negotiation" (p. 195) is not tested. Sincere, empathic representation may plausibly explain high motivation to succeed in a negotiation, but will it carry weight in a predictive scheme that also includes being wily or skillful in collective bargaining for a union or in disarmament talks for a nation? There is enough research to show that the behaviorist and the symbolic interactionist aspects of Mead's ideas can be studied empirically. More of this ought to be forthcoming from the Iowa school.

The editors invite the reader to accept this collection of readings as an exploratory statement and to join with them in a constructive discussion of the issues. It is unfortunate that the authors of these pieces were not

encouraged to provide more linking discussion. Many statements are made and left hanging without disclosure of the reasoning behind them and without further development. In essay after essay there are preliminary exploratory assertions, often without formal statements, explicit hypotheses, concrete predictions, or empirical tests. The total effect is an extended, unsystematic exposition, with the reader left to sort and organize and formulate a theory. This school, as well as others, should identify how its analyses differ from other approaches and show coherently where its work could lead.

*The Labelling of Deviance: Evaluating a Perspective.* Edited by Walter R. Gove. New York: Halsted Press, 1975. Pp. 313. \$15.00.

John Hagan

*Indiana University*

For more than a decade now, many (probably most) sociologists of deviance have talked to one another, to their students, and to government officials as if they believed that (1) deviant labels were applied independently of the behaviors or acts of those labeled, and that (2) the labeling then caused such behaviors or acts to occur repeatedly. These propositions were accepted primarily on faith and remained without confirmation or falsification for a period long enough to embarrass some but enthrall others. It was a period of "creativity and growth," and a new literature based on the "societal response to deviance" emerged. But all eras end, and this one certainly showed fatal signs at the Third Vanderbilt Sociology Conference, the proceedings of which were organized and edited in book form by Gove. Most significantly, this volume demonstrates that "it is the behavior or condition of the person that is the *critical* factor in causing someone to be labelled a deviant" and "labelling is *not* the major cause of the development of stabilized deviant behavior" (p. 295, emphasis added). These conclusions are affirmed by nine experts in eight areas: alcoholism (Lee Robins), mental illness (Walter Gove), mental retardation (Robert Gordon), physical disability (Richard Smith), crime (Charles Tittle), juvenile delinquency (Travis Hirschi), heroin addiction (William McAuliffe), and sexual deviance (Edward Sagarin and Robert Kelly).

The findings themselves produce interesting responses. Hirschi explains the disparity between the popular beliefs and the data by noting that "labelling theory has prospered in an atmosphere of contempt for the results of careful research. Little wonder that such research is now returning the compliment!" (p. 199). Not surprisingly, John Kitsuse and Edwin Schur react quite differently when asked to respond to the proceedings. Their argument, predictably, is that the assessors pursued the wrong questions. They acknowledge that ambiguities in classic statements of the labeling viewpoint may have made such questions *seem* central but main-

tain that the real issue is how norms emerge in the first place (pp. 276, 290). Schur infers from this that "the central focus, then, is on *characterizations of behavior* rather than on behavior itself" (p. 287). This devaluation of the behavioral variable may seem disconcerting to those readers of Schur's works advocating "radical nonintervention," legalized heroin distribution, and the decriminalization of "victimless crimes." Were the behavioral consequences of these policy recommendations of only secondary interest to this labeling theorist-cum-advocate?

This reservation aside, I would like to articulate a set of research priorities that proceed in part from the observations of Kitsuse, Schur, and Hirschi. In brief, I believe that the data collected in Gove's volume contain important leads for reorganizing our research in order to investigate the question posed by Schur and Kitsuse—namely, how norms emerge—and, Schur's injunction notwithstanding, what the behavioral consequences of this emergence are. The goal is to remedy the empirical deficiency that Hirschi emphasizes—in other words, to give labeling theory the inductive benefit of the data we have in hand. Let us return, then, to the data.

A fascinating finding of this volume is that social resources do have some, albeit not a critical, influence on the application of labels; when this influence operates, the less punitive labels are applied differentially to more "resourceful" persons, while the more punitive ones are applied differentially to less "resourceful" persons. For example, when contaminating behavioral variables are controlled, there is limited evidence that criminal (p. 170) and delinquent (p. 194) labels are applied somewhat more frequently to the socially disadvantaged, whereas psychiatric (p. 57) and physical disability (p. 151) labels are reserved somewhat more frequently for those who take advantage of their social resources. At this point, it is important to emphasize that social advantage implies not only access to resources, but also the ability and motivation to use them. It is the essence of social class that there is a differential learning of the ways and reasons to act to one's advantage. Thus, Gove (p. 53) reports evidence from the mental health literature to support the proposition that "the upper classes . . . seek treatment more quickly and for a wider range of behavior than persons from the lower classes." Similarly, Smith (p. 152) finds that the socially advantaged have better access to physical disability labels, in part because "clients who do not submit their own evidence and therefore must rely on agency facilities to document evidence of disability . . . are more likely to be initially rejected." The point is that some labels, under some conditions, become advantageous, and the ability to take advantage of these conditions varies by social class.

The interesting issue is how one learns to evaluate the relative utilities and liabilities of various labels. Apparently this learning process is socially conditioned. The researchable problems, then, are how one learns that some normative deviations carry more punitive sanctions than others, and how the learning of these normative lessons is linked to class background.



My suggestion is that the learning of these lessons clearly begins in childhood and should be studied as such. My hypothesis is that children learn, with variation by social class, that some forms of deviation are punishable, others treatable. Children also learn, again with variation by social class, that patterns of deviation that go untreated can become punishable in their advanced form (e.g., paranoia become homicide)—and thus the urgency of early response.

On the other hand, to focus on the decision makers in agencies of social control, as most of us have over the last decade, is to miss the earlier link between the social-control process and the class-connected lessons of socialization. We live in a society where predatory behaviors and punishing labels are directly related. This lesson is taught from childhood, and our social-control agencies are structured on this principle. For example, although some social workers and sociologists may insist on confusing the issue, mental hospitals do intend to "treat," while prisons intend to "punish." What I am suggesting is that the crucial link between socialization and control networks is that advantaged children learn that some forms of deviance are more acceptable than others (e.g., mental illness vs. crime and delinquency). In addition, they learn that early response to such deviations promises treatment rather than punishment (e.g., approaching a mental institution early may avoid imprisonment later). It is in this context that class-related differences in the application of labels become more meaningful and the very existence of different types of deviance and agencies of social control becomes understandable.

Summarizing, the behavioral differences that Gove and his assessors emphasize are real, substantial, and sometimes unalterable (e.g., physical disabilities and mental retardation). However, this does not discount the fact that many of these behaviors are conditioned in childhood, often through the medium of class-linked experiences, and that the learning of norms and the application of labels can be studied from this viewpoint. If we understood better both how norms are learned in the first place and how class influences the process, we could begin to understand how agencies of social control serve to ratify and perpetuate this process. Gove's book can return us to these basic issues.

*Women and Crime.* By Rita James Simon. Lexington, Mass.: Lexington Books, 1975. Pp. xvi+127. \$12.50.

Otto Pollak

*University of Pennsylvania*

Rita James Simon's book deals with a question which is both relevant and timely, namely, the impact of the women's movement on female crime. It is in essence a book on the impact of positive social change on deviance. Since opportunities to commit crimes against property can be assumed to have increased for women as their participation in the labor force has

increased and as positions which make fraud and embezzlement possible have become increasingly available to them, the rate of commission of such crimes by women might be expected to have risen. The book represents a statistical analysis of comparative arrest data from uniform crime reports for the years 1953-72 for violent crimes and property crimes. The data show that the arrests of men for participation in violent offenses have increased over the two decades almost four times as much as the arrests of women. For property offenses, however, the arrests of women have increased threefold compared with those of men. These figures would suggest that increased participation in the labor force has been accompanied by an increase in arrests of women for property offenses, not necessarily for participation in violent crimes.

The author points out, however, that the higher-status positions in traditionally male occupations have not yet been attained in significant numbers by women and that before women's participation in crime can be expected to match their representation in society, women must have corresponding opportunities to commit crimes.

The author also presents interesting evidence about differentials between women and men in convictions, imprisonment, and the use of parole. These data show that there is still a protective bias toward women who commit crimes. The essence of Simon's findings in this respect can be best presented in her words: "In sum, the picture today about how women fare at various stages in the criminal justice system is that although one in 6.5 arrests are women and one in nine convictions are women, only about one in thirty of those sentenced to prison are women. These ratios have not changed drastically over the past two decades, even though these years have seen a women's movement develop and expand, and an increase in the proportion of women working full time outside their homes" (p. 108).

I see the essential contribution of this book in its insistence on statistical analysis in the face of political rhetoric. It is also important to note that the author clears the record regarding the official position of the women's movement on the possibility of an increase of female crime as a result of increasing opportunities to commit such crimes. She points out that the leaders of the movement have made strenuous efforts not to take a utopian stance in this respect and have expressed willingness to pay the price of increased female crime for increased female opportunity. In my opinion, the book has to be commended as a valuable pioneering contribution to the study of the social costs of social improvement, although the author is careful to point out that the evidence is not yet sufficiently available.

The only negative note which I feel compelled to make is that the book deserves to have been better edited than it apparently was. Cezare Lombroso is misspelled "Lombrozo," and neither he nor Sigmund Freud is to be found among the references, although they are mentioned in the review of the literature.

*The Prison: Policy and Practice.* By Gordon Hawkins. Chicago: University of Chicago Press, 1976. Pp. xi+217. \$10.95.

*Changing Prisons.* By J. E. Hall Williams. London: Peter Owen, Ltd., 1975. Pp. ix+210. \$14.95.

*Work Furlough and the County Jail.* By Alvin Rudoff. Springfield, Ill.: Charles C. Thomas, 1975. Pp. xiii+198. \$12.50.

James B. Jacobs

*Cornell University*

These three books deal with policy questions and empirical issues concerning imprisonment. They appear at a time when the evident failure of rehabilitation programs to reduce recidivism has led many commentators and scholars to reassess the efficacy of deterrence and the moral functions of punishment. It is to the credit of each of these authors that he has avoided becoming embroiled in a new ideological debate and has seriously attempted to take stock of where we are by examining the principles and practice of contemporary imprisonment.

Of the three books Gordon Hawkins's is by far the most important. Although, unlike J. E. Williams and Alvin Rudoff, he offers no new data, his exhaustive and skillful review of the empirical research (most of it sociological), commission reports, and philosophical jurisprudence on the topic of imprisonment is the best currently available. *The Prison* will be a very useful reference for sociologists who work in the field, and perhaps even more important for nonprison specialists who wish to catch up with the current state of scholarship on the subject.

Hawkins's chapter, "The Effects of Imprisonment," constitutes a very lucid and analytical treatment of the by now somewhat tiresome sociological debate on the "origins" of the prisoner culture and social system. Clemmer's theory of "prisonization" is very closely examined in the light of three distinct lines of empirical research. Hawkins concludes that "it should be some consolation that the belief that all who enter prison are ineluctably doomed to deterioration proves, on examination, to rest on no more rational basis than the antithetical idea that, if only we knew how, panacean programs could be devised which would transform all offenders into model citizens" (p. 80).

Two of Hawkins's other chapters offer a critique of the literature on prison guards ("The Other Prisoners") and prison labor ("Neither Slavery nor Involuntary Servitude"), topics too often either neglected or treated superficially in prison studies. With respect to the guards, Hawkins points out that they have frequently served as convenient scapegoats for larger failings in penal policy. Drawing heavily on the seminal work of Daniel Glaser, he also argues that the typical description of the prisoners and guards as locked in daily combat is excessively melodramatic. The scholarship on the subject, according to Hawkins, indicates great variation in the attitudes and roles among prison officers and suggests that the failure to link empirical study to policies of recruitment and training has

undermined the possibility of establishing humane prisons where inmates can find encouragement and support if they are looking for them. While more impressed than Hawkins by the strength of organizational imperatives as determinants of the guard's role and ideology, I found the meticulous examination of the American and British scholarship on the subject most valuable.

In his discussion of work in prison Hawkins points out the many confused and sometimes contradictory justifications for prison industries and vocational training. Is work to be considered a punishment or is it to be thought of as a privilege? Is the object of prison labor in a rehabilitation program training for work or training by work? No doubt the way prison work is defined is determined by the prisoner's integration into the larger society. Here I found most interesting the discussion of prison labor policies of the other Western democracies which seem to have gone much further in extending to the prisoner the rights of citizenship.

Hawkins's book is more than a road map of the contemporary prison scene because the book is organized around key theoretical and policy issues. *Changing Prisons* by J. E. Hall Williams is more like the road map, albeit a detailed, accurate, and useful one, of the English terrain. He wrote the book at the invitation of the Contemporary Issues Series, after concluding "that the time seemed ripe for an objective and detached survey of the developments which were taking place in the Institutions under the control of the Prison Department" (p. 1). The book deals with the key problems and policy choices faced by the British prison system since 1970 and draws extensively from commission reports, white papers, and internal documents with which I, for one, was not previously familiar. The very careful and scholarly analysis of the current state of things in British prisons makes this book eminently worth reading for those with very specialized interests in penology, but of less overall importance than Hawkins's monograph.

What I found most important in *Changing Prisons* was the author's sensitivity to organizational and administrative variables which are properties of the whole prison system rather than of the individual prison. For example, Williams several times stresses the way in which population pressures in the British system have, in recent years, caused administrative shock waves throughout the system. To take another example, the abolition of the death penalty and the increased length of sentences have produced a plethora of long-term prisoners who do not fit easily into the existing web of British penal institutions. Likewise, intensified violence in the early 1970s has raised the question for the penal administrators as to whether the "trouble-makers" should be concentrated in a single maximum-security facility (as the prison officers' union demands) or dispersed throughout the system. I know of no other work on prisons which is so attentive to the fact that prisons do not exist as isolated institutions but are functionally interrelated in a system which makes fateful decisions about distributing prisoners, staff, and resources. Written from this perspective, the chapters on classification, security, and prison labor are particularly interesting.

One criticism of the Williams book is that it reflects something of an insider's bias. It was written after the author had completed a period of service on the Parole Board for England and Wales. At several places I felt that sympathy for the administrators detracted from the objectivity of the analysis. For example, the author tells us that "no one can fault the Prison Department for not trying to adapt to the needs of the present day conditions . . . if there is room for criticism it should be directed elsewhere, to the inflexibility of public attitudes, to the courts . . ." (p. 193). In another instance Williams dismisses out of hand the demands which were submitted by a nascent prisoners' union. The demands—free access to the prisons for the press, for example—did not seem to me so clearly impractical and unacceptable as to justify the summary rejection.

Unlike Hawkins or Williams, Rudoff does not attempt a broad critique of penal policy. In fact, in *Work Furlough and the County Jail* he purports to be evaluating a work-furlough program run for misdemeanants and minor felons out of the Santa Clara County Jail's minimum-security unit. I say "purports" because much of the book deals with subject matter unrelated to the work-furlough program—the staff of the minimum-security unit and the maximum-security female prisoners, for example. In an effort to include as many of the results of the survey as possible, a great deal of extraneous and irrelevant material is presented.

Rudoff's unusual conclusion that the jail's work-release program reduces recidivism is very dubious. To support this assertion of the program's success he points out that for both furloughees and nonfurloughees the number of arrests in the 18 months after release is fewer than the number for the 18 months prior to commitment. While a few of his other "measures" are slightly more adequate, none of them support the burden of the argument. The fact that those participating in the work-furlough program were preselected precisely because they were considered to be better risks undermines the validity of an experimental design even when the correct indicators are used.

The author's conclusion that the work-release program is also a success because of the several hundred thousand dollars contributed over a two-year period by the furloughees to the county and to their families is more interesting than the recidivism point, and I would have liked more discussion of it. Despite the fact that a considerable amount of money has been earned by jail inmates participating in the program, Rudoff is critical of the program's emphasis on placement without regard to the quality of the job. He believes that experience with dead-end jobs that offer no potential for upward occupational mobility accounts for the fact that the work furloughees' attitudes deteriorated more during the work-furlough period than did the attitudes of the nonfurloughees.

To the author's credit is a very frank and self-critical discussion of some of the problems involved in carrying out the research. The relationship between the student research assistants, who were stationed at the minimum-security unit, and the staff degenerated to the point where the students were posting antagonistic drawings and cartoons on their office door. Rudoff also notes that the presence of the research team had the

effect of increasing the cohesion between the institution's rehabilitation and custody personnel. At the very least it would seem to me that this would caution us to look at the staff's survey responses with some care. More important, it calls attention to the need to address the question of how value-free and unobtrusive research can be conducted in such highly politically charged settings as penal institutions.

*Thinking about Crime.* By James Q. Wilson. New York: Basic Books, 1975. Pp. xix+231. \$10.00.

Jack P. Gibbs

*University of Arizona*

Large portions of this book are revisions of earlier publications, and criminologists can now react to the challenge posed by a more complete statement of James Q. Wilson's ideas. The challenge reduces to a negative view of criminological theories—they are virtually worthless in contemplating and formulating policies for controlling crime. This review focuses on that negative view not just because of its import for sociology but also because it is Wilson's *only* major theme in a book that treats such widely diverse subjects as the politics of crime, the police, heroin, courts and criminal corrections, and the death penalty.

Wilson's negative view of criminological theories stems from a very specific premise: criminological theories identify alleged causal variables that cannot be manipulated readily (if at all) to realize policy goals. Stating the argument in Wilson's own terms: "Ultimate causes cannot be the object of policy efforts precisely because, being ultimate, they cannot be changed" (p. 50).

The notion of ultimate causes obfuscates Wilson's argument, which actually requires no reference to causation. Any policy deliberation that touches on empirical matters reduces to a question in this form: If such-and-such is done, what will happen? An answer is a prediction, and sophisticated policymakers are interested in predictions rather than the metaphysics of causation. Of course, theories are always conditional, that is, some condition must obtain before a prediction follows from a theory. Viewed that way, Wilson argues that criminological theories identify alleged antecedent correlates of crime that cannot be "easily and deliberately altered."

Wilson treats Sutherland's theory and the Cloward-Ohlin theory as exemplifications, but he offers a simpler illustration: "Criminologists have shown beyond doubt that men commit more crimes than women and younger men more (of certain kinds) than older ones. It is a theoretically important and scientifically correct observation. Yet it means little for policy makers concerned with crime prevention, since men cannot be changed into women or made to skip over the adolescent years" (p. 50). The argument has more implications for criminological theory than Wilson recognizes. If policymakers cannot manipulate all conditions, the

only theories that have policy implications are those that identify *sufficient* conditions for conformity to criminal laws. In any case, the manipulability of an alleged sufficient condition is crucial, and whether the condition is also necessary becomes irrelevant. An emphasis on sufficient conditions is alien to what are now conventional sociological research methods, meaning that the necessary/sufficient distinction is not central in correlation analysis, causal models, or path analysis. For that matter, the growing indifference of sociologists to the amount of variance explained by a model is not conducive to an impact on policy. Yet Wilson appears discontent not so much with the small amount of variance explained as with the focus of criminological theorists and researchers on independent variables that are not readily subject to manipulation.

Wilson's argument leads him to suggest that criminologists have slighted research on the deterrence doctrine. Surely there is evidence that criminologists dismissed the doctrine prematurely, and Wilson correctly points out that the subject received scant attention from the Task Force on the Assessment of Crime. On the other hand, Wilson's numerous observations on programs to increase the actual or perceived risk of punishment (including apprehension) are hardly compelling evidence of deterrence. For that matter, Wilson appears insensitive to the awful evidential problems in assessing the deterrence doctrine and to the limitations of recent research (even the distinction between deterrence and other preventive mechanisms of punishment goes unemphasized). Yet Wilson is actually concerned with the preventive effects of legal reactions to crime, not just deterrence; and he ends by emphasizing the possible importance of incapacitation, but limited evidence precludes a forceful defense of that emphasis. However, Wilson does not pretend to be an authority on deterrence; hence, his admonishments reduce to a reasonable question: Since the deterrence doctrine has real policy implications, why not devote more attention to it?

If criminologists reject Wilson's allegations, their counterarguments will be strained. Modifying attitudes or values, altering interactional patterns, and expanding the legitimate opportunities are logically possible ways of applying criminological theories, but selling their implementation to interest groups is another matter. Indeed, Wilson could have extended his argument by emphasizing that application of a criminological theory requires another theory to manipulate independent variables. Consider an illustrative question: What is the empirical relation between racial-ethnic integration of schools and exposure of minority juveniles to definitions that favor conformity to laws? Such a question would have to be answered in order to apply the differential association theory, and the Great Society's crime-prevention programs came to grief possibly because they are not based on defensible theories of application. Wilson alludes to that possibility in making observations on diverse facets of the Great Society (e.g., poverty, race relations), facets so diverse that his insights and arguments cannot be summarized here.

Wilson is sensitive to the importance of pure theory and research, so he argues only that criminologists are inordinately preoccupied with the

"pure." Yet he fails to see that the deterrence doctrine cannot be assessed thoroughly without at least statistical controls for relevant *extralegal* conditions (e.g., possibly unemployment); but the identification of those conditions is a matter for theory, even though the conditions may not be subject to manipulation.

Beyond making vague allusions to ideology, Wilson is silent as to why criminologists (especially those in sociology) are ostensibly reluctant to engage in work that could have policy import. The reluctance is not irrational, and the reasons for it transcend the fear that work on pure theory will cease. Wilson simply does not confront the dilemmas of engaging in policy-oriented theory and research, one being that such engagement may contribute to the preservation of the political and economic status quo. Yet his book should prompt sociologists with criminological interests to contemplate the possibility that someday they will find themselves "on the outside looking in," condemned as irrelevant by those (including deans) who command resources. Wilson notes that sociologists have given way to economists in the renewal of deterrence research, and that is a testimonial to the economist's greater sensitivity to policy issues. Sociologists may elect to refrain from what they consider to be "whoring," but it is indeed an old profession; and, unfortunately, the decision to refrain is something more than a moral choice.

*Crime, Punishment, and Deterrence.* By Jack P. Gibbs. New York: Elsevier Scientific Publishing Co., 1975. Pp. xi+258. \$12.95.

Charles R. Tittle

*Florida Atlantic University*

Jack Gibbs begins his book with a narrow definition of deterrence that focuses on individual inhibition in response to fear of punishment. He then tries to show that it is impossible to determine if punishment or the threats of punishment actually deter because (1) cognition cannot be directly observed, (2) linking internal characteristics to manifest behavior is at best inferential, and (3) the available data are inappropriate. Most of the book is therefore devoted to demonstrating the difficulties and futility of deterrence research. Gibbs denies the relevance of most current work that claims to address the deterrence question and criticizes its general inadequacy. Having proven that it is impossible to learn anything about "deterrence," he then suggests we study instead the "preventive effects" of punishment. Several approaches to that end are outlined, and the reader is introduced to some refined measures of various properties of punishment and prevention, along with several provocative ideas for future research.

Perhaps the strongest part of the book is the third chapter, which argues that punishment can lead to a reduction in crime through at least nine mechanisms besides deterrence. These include widely recognized factors such as incapacitation as well as lesser-known ones like reforma-



tion of offenders and prevention of retributive crimes that occur when victims and relatives do not obtain a sense of revenge through official punishment. Thus he convinces the reader that even if it could be shown experimentally that punishment reduces crime one would have to rule out other interpretations before one could draw the conclusion that deterrence causes the reduction. Moreover, Gibbs repeatedly makes the point that meaningful research on the deterrence question must focus on how punishment or punishment threats are perceived and must show the relationship between such perceptions and actual characteristics of punishment.

There is great merit in this work, and nobody interested in the deterrence issue or in deviance, law, or criminology can afford to ignore it. Yet there are, in my opinion, some glaring defects. In the first place, much of the argument revolves around a semantic distinction concerning the definition of "deterrence." I believe the author would have made a greater contribution and could have spared us much confusion if he had simply addressed the issue of what effect threats of sanctions have on behavior (no matter what it is called). Within that framework, he could have developed the idea of different kinds of effects that might be produced by fear as well as by other mechanisms. The weakness of the definitional straw man is all too obvious when Gibbs finally recognizes the fruitfulness of studying "preventive effects."

Second, I believe many will be misled into stifling pessimism because Gibbs too easily dismisses possible solutions to evidential problems. For example, he gives the impression that when one uses official statistics one might as well not try to separate deterrence from other variables. Yet already several creative efforts to estimate incapacitating effects independent of deterrence have produced promising results. There is no a priori reason to rule out such solutions for other problems. Likewise, Gibbs assumes that investigators cannot take into account etiological variables in tests of hypotheses. But again he seems to discount prematurely the possibility of statistical control. Similarly, while recognizing perception studies as critical, he displays little vision in thinking about their potentiality. His judgments of impossibility appear to me to be based on a narrow methodological perspective. Actually, Gibbs seems a little uncomfortable with his own stance, since there are numerous examples of ambivalence. For instance, he begins the first chapter by saying that his book is a "continuous denial of immediate prospects for satisfactory answers" (p. 1). Yet he expresses the belief that social scientists have dismissed the deterrence doctrine prematurely. On one hand he calls for a "moratorium on conventional research" (p. 2), but on the other he admonishes us to do more "exploratory work" (p. x). And despite his pessimism, he cannot resist advancing astute practical proposals of his own for solving research problems.

Finally, some of the arguments are tortured and unnecessarily complex, leading only to insignificant points, while other ideas are glibly rejected with hardly any argument. Nevertheless I have to recommend this as an exceptionally thorough and important addition to the deter-

rence literature. It has all the characteristics one has come to expect of Gibbs's work. It subjects the deterrence question to withering scrutiny, involving minutely precise conceptualizations and seemingly endless typologies that are enlightening although tedious. It addresses most issues with airtight logic and underscores the necessity for theory. It is chock full of important insights that will be appreciated especially by the involved researcher. And it even systematically considers policy implications. Thus acquaintance with this book will force the reader to be acutely aware of the need for care if he is contemplating research on the behavioral effect of sanctions.

*Justice by Consent: Plea Bargains in the American Courthouse.* By Arthur Rosett and Donald R. Cressey. Philadelphia: J. B. Lippincott Co., 1976. Pp. xvi+227. \$10.00 (cloth); \$3.95 (paper).

Gregg Barak

*University of Nevada, Las Vegas*

A testimonial to this recent book by Arthur Rosett and Donald R. Cressey unwittingly exposes the fundamental weakness and/or contradiction underlying their work. On the back cover, the testimonial states that the "particular genius" of *Justice by Consent* "is its ability to integrate in an intelligent manner the theoretical foundations of our criminal justice system with the dramatic differences of its routine operations and to do so in a way that . . . does no violence to the profound concepts [e.g., due process, rule of law, etc.] involved." Realizing that the adversary model (determining guilt or innocence) of criminal justice adjudication has already proven itself bankrupt in practice, Rosett and Cressey, nevertheless, cling to the model by emphasizing the "courthouse's" function in distributing pain with fairness.

The intended effect of their thesis is to make adjusted or negotiated punishments (guilty pleas) both rationally and morally palatable, leaving the procedural as well as the substantive sides of the criminal law unchallenged. The authors recognize the conflict inherent in their twofold aim. On the one hand there is the issue of expedience in processing the assembly line of criminal defendants; on the other, there is the general interest in maximizing those aspects of the formal administration of criminal justice that legitimate it in democratic societies. They argue that strict adherence to the latter objective is neither utilitarian nor just in accomplishing the former. Hence, by implication, due process and jury trials have little utility.

The authors maintain that since those individuals customarily prosecuted (those cases sifted out of the total number of arrests) are in fact guilty of the crimes they are charged with the proper role of the court becomes one of deciding what to do with criminals. In other words, as the issue of legal guilt becomes a moot point, trials are wasteful at worst and perfunctory at best. Moreover, the litigation involved is both expensive

and time consuming, especially when the criminal dockets continue to expand at a rate disproportionate to the available resources. Conversely, what is utilitarian and, therefore, rational is plea bargaining, or what Rosett and Cressey have more accurately described as guilty plea negotiations. Their argument maintains that these negotiations act to delicately balance the formal needs of the criminal law with the individual needs of the offender and the victim and with the needs of the larger community. Finally, utility and rationality are linked with what is "just," since the authors argue that "strict compliance with severe and rigid laws abstractly resembles justice, but it is not just in effect." Instead they suggest that just effects can be determined and achieved better through professional experts—prosecutors, defense attorneys, and judges—engaged daily in "doing justice." Despite the overwhelming pressures on these court functionaries to keep the caseloads moving, to cooperate with the larger bureaucratic concerns of the criminal justice system, and to satisfy their respective organizational interests, Rosett and Cressey insist that professionals are administering "justice by consent" as opposed to "justice by coercion."

In this book the two orientations of bourgeois legality (Rosett) and liberal sociology (Cressey) cooperate to both defend and reconstruct a reality of plea bargaining in the American courthouse. Such a defense of the law in action serves not only to mystify the very *raison d'être* of the criminal law but also to reify the existing social order. In the end, these authors provide us with another contemporary justification for further institutionalizing the present criminal justice system within the political economy of state capitalism: *bargain justice* actually comes closer than *adversary justice* to resolving the inherent conflict between "treating like situations" alike and "giving each person what he deserves."

Rosett and Cressey more than once acknowledge that most practitioners of criminal justice, including police, prosecutors, defense attorneys, judges, or penal authorities, rarely, if ever, ask why there is a system of criminal justice or what purpose the criminal law serves. However, this omission on the part of criminal justice workers is shared by the authors themselves. They present an uncritical and conventional discussion of the notions of retribution, deterrence, isolation, etc., and, as a result, their analysis fails to develop an explanatory framework for understanding "crime," "punishment," or "justice" in capitalist society. At the close of *Justice by Consent* we are simplistically informed that "the problem of preventing crime is principally one of giving more citizens a stake in conformity. The effective strategy is to make crime unthinkable. . . . The courthouse procedures and ceremonies can both stimulate and reinforce people's willingness to conform" (p. 187).

As it has been pointed out elsewhere by Isaac D. Balbus (*The Dialectics of Legal Repression* [New York: Russell Sage, 1973]), both Marx and Weber recognized the inseparableness of formal legal rationality and capitalism in the development of the modern liberal state. Concomitantly, within capitalist society formal legal equality and extreme economic and political inequality exist side by side. Balbus rightly con-

cludes that "the principle of formal legal rationality is a legitimizing principle fraught with tensions and contradictions, a mixed blessing to those with a long-run interest in the preservation of the capitalist order." Rosett and Cressey ignore the problematical issue that the criminal law, by treating economic unequals "equally" (e.g., bail), is fundamentally unjust to begin with, and they proceed to maintain that justice can be found in neither the statutes nor the judicial decisions, nor, more important, in the larger political economy. Instead, they claim that justice can be found in the courthouse itself—in the way judges and lawyers daily distribute punishment and negotiate the contradictions inherent in bourgeois legality.

*Justice by Consent*, with all its analytical problems, is still a valuable work on the administration of criminal justice. Rosett and Cressey provide the introductory student with, perhaps, the most comprehensive and best descriptive account of plea bargaining in the American courthouse. Unfortunately, their explanation of the purpose of the administration of criminal justice and their inadequately developed theory of crime and punishment generally prevent this book from making a significant contribution to the field.

*Making the Papers*. By Edie N. Goldenberg. Lexington, Mass.: D. C. Heath & Co., 1975. Pp. xiii+165. \$13.00.

Marilyn Lester

*Temple University*

Edie Goldenberg's *Making the Papers* is the most comprehensive contribution to the resurgence of sociological research on access to newspaper coverage and its importance for society and for subgroups therein. No one concerned with the problems of hegemony or the role and functioning of the press as a resource in the society should let this work pass. The book will also aid resource-poor groups which lack knowledge on how to become newsworthy.

In this work, Goldenberg describes the conditions which both promote and inhibit the seeking and gaining of access to media coverage. The book focuses on groups which fail to obtain sustained access to coverage owing to a lack of money, status, and institutional affiliation. These conditions affecting success involve characteristics of (a) the groups seeking access, (b) the target to be influenced through coverage, (c) newspapers themselves, and (d) the relationship between resource-poor groups and the papers.

The resource poor, like the resource rich, pursue or sometimes try to avoid media coverage, depending on their needs and purposes at any given time. A group's needs must conform to a newspaper's criteria of newsworthiness. So, for example, when the group goals are seen by the press to deviate from prevailing social norms, or when they represent a

variation on a theme already receiving attention, the potential for access is increased. But, as others have shown, when "deviations" such as threats and demonstrations become repetitive, they lose their newsworthy character. Resource-poor groups have to achieve a delicate balance to be newsworthy, a balance between presenting a deviating image and preserving some measure of legitimacy. That is, access is more likely to accrue to groups which project images of moral superiority over their targets and appear representative of a large population but simultaneously violate routines—a difficult fence to straddle. Goldenberg illustrates varying degrees of success in terms of these and other group characteristics among four resource-poor groups in Boston in the late 1960s and early 1970s.

As if meeting these conditions were not enough, the author discusses features of the press which abet or inhibit access of poorly endowed groups. A resource-poor group will have a better chance of receiving coverage if the newspaper's intended targets are "liberals," if its editorial policies sympathize with such groups, and if the reporting staff for local news is large enough to span both the conventionally newsworthy groups and the poor. Papers which promote advocacy journalism in contrast to traditional objectivity reporting are good prospects for the resource poor. Goldenberg also discusses space, competing stories, structure of deadlines, and layers of hierarchical organization within the news-gathering organization as particulars to take into account should a group have a choice of which papers to approach for coverage. The organization of the reporting staff is critical. Of great importance to resource-poor groups is the newspaper with "issue specialists" and special columnists instead of the traditional beat structure or general assignment reporting. Moreover, Goldenberg outlines characteristics of the reporter which will facilitate his or her success at covering the resource poor.

In the final chapters, the interaction between reporters and resource-poor groups is discussed. For example, contact can be initiated by the group or the reporter. The former is most successful if the group contacts a specific, sympathetic specialist on the news staff as opposed to contacting a general assignment reporter or submitting a press release to the city desk.

Several problem areas detract from the overall effectiveness of the work. First, while the book is a compendium of conditions affecting access to the papers, there is a general lack of elaboration of the topics covered. Goldenberg moves quickly from one condition to the next as if she were preparing an outline rather than a book. This is most clearly manifest in her chapters on media organization (6-8), where the analysis appears facile owing to its shortness and lack of depth. Also, there is a curious absence of reference to Tuchman's recent work on the functioning of the media. I found the book disappointing precisely because its potential for offering a *rich* analysis of the access process went unrealized.

Second, the author never makes it quite clear how she derived the analysis. She begins with a tedious series of definitions of access as if she were going to deduce hypotheses logically and then test them in her field

sites in Boston. It is possible, however, that the concepts and conditions were developed inductively. It is impossible to tell which method is followed because she provides no discussion of her methodology other than a description of her site and the fact that (not how) she conducted interviews.

While Goldenberg attempts to link theory to data, she also falls short in this regard. Her presentations of illustrative empirical materials is so short and capriciously placed as to be practically useless to the non-Bostonian. Thus, there is no evidence in the book of the extensive field research which she claims to have conducted. This omission can have two explanations: either space limitations prevented a thorough integration of theory and research, in which case the publisher needs a lecture, or there was a lack of systematic analysis of the data, with a focus instead on developing a list of formal conditions to be merely illustrated by the data.

Despite these shortcomings, there is now a set of hypothesized conditions which other researchers can explore in more detail in diverse arenas in order to extend our knowledge of the press and how access is gained to it.

*The Unseeing Eye: The Myth of Television Power in National Politics.* By Thomas E. Patterson and Robert D. McClure. New York: G. P. Putnam's Sons, 1976. Pp. 218. \$7.95.

John Meyer

*Stanford University*

Once more a social research report slays the dragon of media influence. This time the medium is TV, the occasion is the 1972 presidential election, and the study is a three-wave panel following about 650 respondents in a single metropolitan area from September to November in 1972. The data are analyzed in a style antedating *The People's Choice*, what with change scores and bivariate tabulations, but it probably doesn't matter much. The language is popular and shrill: People who watch the network news (in contrast with newspaper readers) do not become more informed than others, as the campaign progresses, about the candidates' stands on the issues. Nor do they acquire different images of the candidates. Even political commercials have little effect on candidate images (which mostly result from, rather than cause, preferences for candidates), though they do appreciably inform people about candidates' public stands on issues.

The authors add in one minor way to the prevailing discussion. By coding systematically the network news shows and political commercials they show *why* the news shows inform people so little (let alone change them). These news shows have astonishingly little information—much less than political commercials—about candidates' positions on issues. They prefer action shots of candidates speaking or shaking hands.

Aside from this concrete observation, the study has little to offer. It is a late and popularized version of an established form, asking the same

question, getting the same answer, and expressing the same surprise. The question is, of course, how the media messages affect the individual in the audience.

Other questions must be asked if we are to understand the effects of television on society. Most of them start from the central fact that the member of the audience is not an individual at all in important respects: he is  $1/n$  of a nationwide audience in his own eyes and from the perspective of others, including journalists and political campaigners. If we want to understand the effects, we must understand the impact of this transformed status of the individual on all sorts of relevant other parties. For instance,

1. How do the existence and availability of the nationwide TV medium and audience affect the positions and plans of candidates and campaigns? Are these not stylized in a different set of clichés than would otherwise be the case?

2. Does, for instance, the TV system lower the influence of intermediate social and party organizations over political campaigns and candidates?

3. How does the TV system's existence affect the depiction of the campaign by journalists of all sorts? Do they come to interpret the campaign by, on, and for the tube as more real than the campaign of organization and interaction and issues in the network of social interaction?

4. Specifically, does the existence of a relatively unitary national TV system in this country create a greater emphasis on national purposes and issues, as contrasted with local issues and issue implications, than would otherwise be the case? Are the issues of importance to localities and differentiated subunits lost to the national drama—lost even in the minds of members of these subunits?

Questions such as these can be studied empirically but require something more than another audience survey disparaging media effects. One has to compare systems with different media structures and look at their effects, not only on audiences, but on specialized elites in society. Even effects on audiences may lie more in what people learn is real (i.e., what other people know) than in effects on their own views: in this sense, the media create a pageant.

Such issues as these are hard to suppress in the work at hand. The 1972 campaign featured candidates barely remembered by our authors—McGovern and Nixon—who are seen as serious people struggling to get their issues access to the equally serious populace through the frivolous media. Though this picture is needed by the authors for their moral indictment of the television medium, in retrospect something seems wrong about it. Perhaps the media do more than just ineffectively communicate messages to individuals. Perhaps they affect the messages themselves, and even the senders. Perhaps the whole apparatus of 1972—the candidates, images, issues, and campaigns which now seem so phony—was really a media show much more than it was a real show that got garbled in transmission.

We will not be able to address these issues unless we are able to com-

pare media systems and to compare their effects on more elements of society than simply media audiences.

*The Study of Political Commitment.* By John DeLamater. Rose Monograph Series. Washington, D.C.: American Sociological Association, 1973. Pp. i+104. \$2.75 (ASA members); \$5.00 (nonmembers).

James L. Wood

*San Diego State University*

John DeLamater's *The Study of Political Commitment* could be of interest to political sociologists, students of non-Western nations, and methodologists. In a study of Yugoslavia using survey research data, DeLamater examines the conditions that produce political commitment, which is defined as "the individual's support of his society's political system . . ." (p. 2). The topic and data are most interesting; yet certain difficulties in analysis make this less of a contribution than it might be.

How does DeLamater explain political commitment? His major strategies are to construct a typology of political commitment, which consists of symbolic commitment, normative commitment, ideological commitment, and functional commitment; to distinguish between those who are oriented primarily to their specific state (Croatia, Serbia, Slovenia, or Macedonia), or to the federal republic of Yugoslavia; to make comparisons among the four states of Yugoslavia; and to examine a series of relatively unrelated hypotheses.

Drawing on his typology and the federal-state distinction, DeLamater suggests a number of hypotheses. Some of them are: (1) "Those who are ideologically committed are oriented to the republic"; (2) "Those who are symbolically committed are oriented to the state"; (3) "Functional commitment [i.e., commitment to the rewards of the political system] increases as the individual's contact and experiences with the larger system increase" (pp. 16-17).

DeLamater goes to great lengths to develop empirical measures of the types of political commitment. In fact, he spends too much time in the body of the monograph describing and justifying these measures. We are given an abundance of information of the following type: "In each state, most if not all of the intercorrelations between variables 323-328 are significant at  $p < .001$ " (p. 29). This information is important in view of his many difficulties of statistical comparison, but it belongs in an appendix instead of in the body of the monograph.

To his credit DeLamater reports many negative findings as well as data supportive of his hypotheses. Some of his results are consistent with his hypotheses, as in Hypothesis I which asserts that ideological commitment will be associated with orientation to the federal republic. The correlations between ideology and federal orientation are supportive of this hypothesis for the overall sample ( $r = .23$ ), Croatia ( $r = .37$ ), and



Macedonia ( $r = .24$ ). In further support of this hypothesis, there is no relationship between ideology and orientation to the state in these instances. Other hypotheses, such as Hypothesis III which associated functional commitment with federal efforts to develop the state, did not receive confirmation.

There is an unresolved conflict throughout the monograph between testing hypotheses and making comparisons among the four states of Yugoslavia. The author's preference appears to favor hypothesis testing, but he often engages in comparisons. For example, he notes that "relative to other states . . . , Slovenia shows low means on all four types of commitment" (p. 44). It is not obvious why this should be the case, but *ex post facto*, he suggests that the magnitude of commitment may be directly related to economic development. However, in this case as in others, DeLamater's comparative analysis seems based more on his statistical findings than on a thorough historical knowledge of the states of Yugoslavia. Comparative statistical analysis should always be complemented by thorough historical knowledge of the units compared.

DeLamater's data are often more complex than his ideas. In the Macedonian data there is a "unique" ideological-functional intercorrelation which is especially pronounced among the less educated (p. 47). We are not told why this is the case, nor does it easily relate to his hypotheses or comparisons among the four states. It is a "finding," but not much else.

DeLamater's major weakness is that he never develops and tests an integrated theory of political commitment. He might well focus on the impact of economic development on political commitment as a central theoretical issue, but he does not. He presents hypotheses, but they are not related in a hypothetical-deductive sense, and they do not point to the explanation of a common phenomenon—that is, they do not constitute a theory that attempts to explain varying types of political commitment. There is too much data reporting instead of using data to support a theory or develop a theme. The improvement of our knowledge about political commitment is thus primarily limited to how well his data validate his typology and how well specific data support or reject specific hypotheses. Even DeLamater admits that it is unclear whether his conclusions are generalizable to other countries (p. 83).

The author's failure to develop a theory of political commitment has more general implications for the new monographic style of publication used in this study. In addition to the ASA's Arnold and Caroline Rose Monograph Series in Sociology, Sage Publications, Eobbs-Merrill, and General Learning Press publish monographs, which are longer than an article but shorter than a book (often between 50 and 125 pages). Should these monographs be more like books or more like articles? That is, should a general theme be developed, or should more narrow research findings be reported? In view of the limits of DeLamater's study, it is clear that these monographs should—like good books—develop a theme and use the extra space to document it.

*Small Groups and Political Rituals in China.* By Martin King Whyte. Berkeley: University of California Press, 1974. Pp. 271. \$12.50 (cloth); \$3.85 (paper).

Paul J. Hiniker

*University of Chicago*

This small book uses refugee interviews and Chinese Communist party documents to build inductively toward generalizations about when and why *hsiao-tsu*, small political study and criticism groups, operate effectively in changing the behavior and attitudes of their members. Whyte argues that some types of Communist organizations containing the pervasive *hsiao-tsu* are inherently better than others in producing the desired attitude changes in the contemporary Chinese populace.

The book is divided into 11 chapters. The first four provide an introduction to the subject and deal with the general significance, origins, and ideal forms of the political study and criticism groups that form a significant part of contemporary Chinese daily life. In the next five chapters Whyte draws upon his 100 refugee interviews to examine the operations of *hsiao-tsu* among cadres, students, peasants, workers, and labor-camp inmates by presenting comparisons to two detailed personal case histories in each of the five organizational settings. The remaining two chapters deal with Whyte's conclusions regarding *hsiao-tsu* effectiveness in different organizational contexts.

Principally, Whyte examines the case studies in five different organizational settings against the ideal criterion of a "strict political atmosphere" which is gleaned from a collection of Party documents about what type of *hsiao-tsu* is maximally effective. His interesting summary of the CCP effectiveness criteria boils down to the twin contentions that *all* activities of study participants must be judged by official norms such that no participant may compartmentalize his activities as between study and non-study groups and that effective social pressure will be mobilized in the group such that *no* social support can be found anywhere by a study participant for any deviant opinion or behavior. From these two strong criteria and his observations about Chinese organizational life, Whyte develops four subordinate hypotheses linking study effectiveness and organizational structure: *hsiao-tsu* are judged more effective if study is at the center of political life, if strong leadership exists, if there are few organizational supervision problems, and if the groups contain a high degree of solidarity within their larger organizational context. His major conclusion, paralleling the work of Etzioni, is that because of their varying structural characteristics cadre organizations and schools will be able to develop stricter political atmospheres than labor camps, communes, and factories and therefore can influence members' attitudes more effectively.

The quality of the book is high, but it contains a number of flaws. First of all, the method of using refugee reports to assess the effects of *hsiao-tsu* begs the question of effectiveness since the data sources invariably reflect

instances of *hsiao-tsu* failures. Thus Whyte is, indeed, on much firmer grounds in making generalizations about the comparative organizational effectiveness of *hsiao-tsu* than he is in making any absolute generalizations about the overall effectiveness of political study, which he finds minimal. Second, anyone who looks forward to data and conclusions on the psychological mechanisms of attitude change through *hsiao-tsu* will be sorely disappointed. Whyte takes the CCP ideal of "strict political atmosphere" as the unimpeachable criterion of success in changing attitudes and makes little effort to establish according to external Western or non-Western social science canons whether this "ideal" is in fact the most effective means of achieving lasting attitude change. Thus the crucial characteristic of "the cult of confession," which Robert Lifton judged a central part of the eight characteristics of the totalistic environment of Chinese thought reform practices, is nowhere examined in this work. Nor does Whyte examine Leon Festinger's criterion of incentive effects in attitude change, which emphasizes low levels of inducement as opposed to high coercion or reward in producing lasting attitude change rather than temporary compliance. Finally, nowhere in the comparison of *hsiao-tsu* cases with the CCP criterion of "strict political atmosphere" is the criterion ever fully realized in practice. The interviewed subjects were always able to compartmentalize the applicability of official norms because of their overlapping membership in family or recreational groups as well as study groups or because of the cyclical nature of political campaigns which allowed for breathing spells following periods of intensive politics. In addition, the subjects were always able to find social support for their deviant views through an independent network of trusted friends. Indeed, the mitigating effect of the privacy of the home appears even more pronounced in Whyte's work because he neglects to study the operation of *hsiao-tsu* in the urban neighborhood or residence committees which contain tens of millions of housewives and elderly Chinese. In short, the CCP criterion of "strict political atmosphere" utilized by Whyte seems too rarified and impossible to attain in practice for extended periods in contemporary Chinese life; how one assesses the impact of approximations is unclear. There is no evidence in the book that any Chinese subject is ever fully encapsulated by the "strict political atmosphere" of *hsiao-tsu*. For this individualists may be thankful; but from Whyte's work they are left unsure in their hope.

In passing this book through the sieve of strict scholarly criticism I may have asked too much of the work under study. All in all, it is a solid work on a most important topic, a work that is in its comparative and historical perspective, clear and well organized in its presentation, rich in its sensitive depiction of the diversity of contemporary Chinese daily life, and balanced in its conclusions on the effects of *hsiao-tsu*. Whyte's massive interviewing effort should be applauded by all who seek to know more about contemporary Chinese life. His book is a major contribution to scholarship on contemporary Chinese society.

*Quebec: Social Change and Political Crisis.* By Dale Posgate and Kenneth McRoberts. Toronto: McClelland & Stewart, 1976. Pp. 216. \$4.95.

Gerd Schroeter

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This is clearly the best available book for introducing the English reader to the "Quebec problem" and giving him enough information to make his own intelligent predictions about the likelihood of Quebec's separating from Canada. It is a much more balanced analysis than other recent popular books on this topic, such as the Milner's *The Decolonization of Quebec* or Marcel Rioux's *Quebec in Question*, and seems to embrace all the relevant literature in both languages published until the end of 1975. In contrast to previous studies in English, it also includes references to Quebec newspapers, especially *Le Devoir*. Posgate and McRoberts claim that they wrote the book because only a fraction of the ongoing debate over Quebec independence has so far impinged upon the consciousness of English Canadians.

The approach throughout is amazingly typological, analytical, and dispassionate for an analysis of such a divisive topic. Chapter 1 provides a general framework by first pointing out the distinction between legitimacy and effectiveness of government (following Lipset) and then discussing the concept of "development" as applicable to Quebec and the rest of Canada. The central government has so far proved to be effective enough to maintain confederation by using techniques such as bargaining, making concessions, and even sending troops into Montreal in October 1970, but for many Quebecois the legitimacy of this government is nil. The basic question is whether the federal institutions should therefore be dismantled or whether renewed effort must be invested in fostering Canadian unity. Thus, while the Prime Minister contends that "bilingualism is what Confederation is all about" and the airline pilots were allowed to go on strike over this issue, many Quebecois reject bilingualism, are not interested in greater access to the civil service in Ottawa, and see an independent Quebec as their single goal.

The authors put great stress on the differences in the dynamics of development between Quebec and the other regions of Canada. From the Canadian perspective, development has been a matter of response to external forces, first British and now largely American, whereas Quebec's development has always been one of resistance to outside influences. Related to this is the observation that politics has become much more of an independent variable in Quebec than it has generally been in Western democracies, where politics reflects social changes rather than shaping them. Throughout the book the authors attempt to represent the perspective on problems of identity and social change, as well as the interpretation of past events, held by Quebecois rather than by English Canadians; this is its particular merit. If there is one difficulty with the text it is that the distinctions between Quebecois and French-Canadian are often

vague. A simple solution would have been to label those Francophones who are profederalist and antiseparatist "French-Canadians" (whether living inside or outside of Quebec) and to consider all those who favor independence "Quebecois"; in this way the name of the Parti Québécois carries a specific connotation as well. The authors don't draw such a distinction and seem to be using the terms interchangeably.

Chapters 2-8 give a comprehensive, chronological account of the history of Quebec from the time of the Conquest (1763) to the present. At the beginning of the 19th century there appeared the agrarian mythology which saw French-Canadians as a rural, farming population dominated by the church. This stereotype, together with extraordinarily high birth-rates, soon became an important component in the struggle for *survivance* (survival) and has only recently been replaced by an equally strong emphasis on *rattrapage* (catching up to social development elsewhere). Rapid economic development took place after 1920, especially in the generation of hydroelectric power, in mining, and in pulp and paper production, while the proportion of the population on farms declined sharply and the cities mushroomed; but the myths lingered on, and political modernization lagged. As recently as 1943 a nationalist cleric was claiming that "by tradition, vocation as well as necessity, we are a people of peasants. Everything that takes us away from the land diminishes and weakens us as a people and encourages cross-breeding, duplicity and treason" (quoted p. 65). In 1960 the Liberals launched the "Quiet Revolution" in Quebec by having the provincial government assume the initiative for social and economic changes which had until then been controlled by the federal government and the Anglo-Canadian and American economic interests. Some of the most important early steps were to create a Department of Education, to nationalize the hydroelectric companies (thereby forming HydroQuébec), and to take over programs affecting health and welfare from the central government. As a result, contemporary Quebec is more urban, more industrial, more secular, more educated, more open, and has more citizen participation than could have been imagined even 20 years ago.

The contention has often been advanced that a significant cause of the rapid social changes in Quebec was the need to accommodate the growing bureaucratic middle class. Posgate and McRoberts pay considerable attention to this stratum, but they also discuss the increasingly radical working class with its aggressive union leadership, which concentrates strictly on bringing about social and political changes within the province and has few ties with the labor movement in the rest of North America. In fact, there are two very different types of cleavage in Quebec: there are the ethnic conflicts between Quebecois and the non-French residents, some affiliated with businesses going back for generations, others recent immigrants; and there are also the sharp socioeconomic differences within the Francophone population, some of whom benefit from federalism while others agitate for independence. Thus, there is no simple answer to the question: What does Quebec want?

One issue that most of the population agrees on, however, is the central importance of language, and the present government has passed Bill 22 which designates French as the only official language in Quebec. Yet, there is still considerable ambiguity about the right of access to English-language schools for children of non-anglophone immigrants, in the same way as there is uncertainty about the extent to which the use of French will be enforced in the private sector of the economy. The language issue is so significant because it is at the heart of ethnic survival and since all demographic projections agree that there will be some decline in the Francophone proportion of the Quebec population over the next 25 years. It is an accepted fact that the rapid assimilation rate for French-Canadians outside Quebec is due to their neglect of the language. Now that Quebec is faced with the lowest birthrate in North America, the French language has now become its major symbol of cultural survival.

But surely the burning question concerns the likelihood that Quebec will separate from Canada in the near future. On this topic the authors again present the latest information, but, although sympathetic to nationalist aspirations, they refuse to commit themselves to a prediction. Only the Parti Québécois (PQ) has taken a clear stand in favor of independence, and it won 24% of the popular vote in 1970 and 30% in 1973, although it gained only seven and six seats, respectively, out of 110 in the National Assembly. Research has shown that the PQ gets a disproportionate share of the Francophone vote and that between 60% and 77% of its supporters during the past several years have been avowed separatists. All this leads to the conclusion that over 30% of the Quebec Francophone population actively supports political independence and that about 50% are opposed, with the remainder still undecided. Hence, the authors hedge their bets about the future: although claiming that "independence is a distinct possibility" (p. 211), they also insist that "there is no historical inevitability to Quebec independence" (p. 196) even though "[the] presence among all classes of alienation from the federal system has placed the Canadian system in serious jeopardy" (p. 174).

This is a lucid and compelling piece of analysis which deserves widespread attention. The book is so carefully documented throughout that every reader will have a much better appreciation of what has become a tenacious and profound crisis, second in importance only to the plight of Canada's native population.

*Eclipse of an Aristocracy: An Investigation of the Ruling Elites of the City of Cordoba.* By Juan Carlos Agulla. English translation by Betty Crouse. University: University of Alabama Press, 1976. Pp. xiii+151. \$8.00.

Shirley Harkess

*University of Kansas*

*Eclipse of an Aristocracy* contains the plan for a book. Since the slim volume (90 5¼ × 8¼ pages of text) is the English translation of a work

that appeared in Spanish in Buenos Aires in 1968, one wonders whether its appearance now in English is not somewhat after the fact. It is unlikely that the book for which the volume under review is a sketch is ever to be forthcoming.

As a plan, or perhaps summary of a research project, *Eclipse of an Aristocracy* is tantalizing. Juan Carlos Agulla, a professor at a university of Cordoba, Argentina, at the time the research was conducted in the mid-sixties, seeks to document the gradual evolution in the nature of an elite through which new elements become incorporated as established ones disappear. Although his study is of one city in Latin America, it has relevance for other urban areas in the region and for nations like Colombia, where the ability of the elite to adapt to changing conditions by selectively recruiting new members has been notable. It is Agulla's contention that this evolutionary process is the social and political correlate of a similarly incremental growth in industrialization. As such, his analysis is intended to counter Marxian and other interpretations that view Argentina's recent past as a record of discontinuous conflict. Confining his study of stratification to the elite allows Agulla to make a convincing case—if we can accept his evidence.

The author surveys positional leadership in Cordoba, where higher education has historically been a central social institution, at four selected points between 1918 and the present (1924, 1937, 1951, and 1960). His principal finding is that the proportion of positions of leadership occupied by members of the "ruling elite of the Cordobese aristocracy" declines from a high of 77% to a still significant proportion of 28%. Unfortunately, the operational definition of neither group is given so the reader can neither ascertain how this finding was arrived at nor assess its validity, thus controverting the publisher's claim that the book "is an exemplary study . . . because of its methodological rigor (it could serve as a model for similar urban studies worldwide)." A similar difficulty dogs his second major finding that the ruling elite abandons the political sector for legal and educational institutions.

To explain the continued representation of the Cordobese aristocracy among positional leaders Agulla turns to an examination of their origin (birthplace, foreign extraction, and father's occupation), occupation, and political party membership. Verging on circularity, he shows how the possession of a university degree by members of the aristocracy (the *sine qua non* for membership?) permitted individuals to enter the group via marriage if they had not been born into it. Throughout the period studied, the university-educated tended to specialize in the pursuit of their professional occupations. The lack of other sources of income and prestige made them inclined to represent, as professionals, interests other than their own and hence, in Agulla's view, adapt to the process of industrialization. Which interests they represented depended, to some extent, on their political party membership. The adaptability and flexibility of those with university degrees, however, insured their demise as a social group: "[T]he fact that they never had had a great economic capacity and that they are very open to receive new members belonging to

other social sectors makes them capable of incorporating into the new social classes which emerge from the process of industrial development of the City of Cordoba" (p. 88).

In addition to the problems already alluded to are several which combine to make *Eclipse of an Aristocracy* incomplete as a book. First, the data presented cry out for more information of a historical nature: What was Cordoba like? what really happened there? What went on at the university? What is the meaning of a university degree in Argentina and in Latin America generally (Agulla never clarifies the crucial distinction that his "doctorates" are the equivalents of a B.A. or M.A.)? etc. Detached from its historical context the analysis of events obviously important to the author seems curiously unreal to the reader, particularly one who may not be a student of Argentina. This problem is compounded by another of equal importance—the lack of a conceptual framework. Only the briefest mention is made of relevant theory in the text; Mosca and Pareto are acknowledged, but few others. And the concepts central to the analysis do not receive adequate elaboration. For example: "These facts led us to establish some conceptual differences between *power elites*, exercising control (political, economic, cultural, etc.) of the entire power structure, and who exercised this power in a normal fashion (that is, by representing a social stratum), and *ruling elites* who, though representing different institutional sectors of the community in the power structure, did not exercise power in a standard fashion, that is, as belonging to a single social stratum (the aristocracy or the bourgeois [sic], for example), nor could they control the entire community power structure" (p. 4). Last, specific conclusions are reached that do not flow directly from the information being presented apparently in their support.

The reader could fill some of these gaps if he or she knew Agulla's previous work (*De la industria al poder* [Buenos Aires: Ediciones Libera, 1966] with Delbert C. Miller and Eva Chamorro Greca) or, better, Miller's own work, *International Community Power Structures: Comparative Studies of Four World Cities* (Bloomington: Indiana University Press, 1970); one of the four cities was Cordoba, in whose study Agulla assisted. We are given a translation of Agulla's article in *Aportes* ("Power Structure and Power Elite in an Urban Community," vol. 2 [October 1966]) as an appendix, but it is not enough. Since *Eclipse of an Aristocracy* cannot stand alone, perhaps we should consider it a footnote to previous work rather than a plan for a future publication.

Finally, the volume suffers badly in translation. The translation by Betty Crouse bears all the marks of a literal draft. Constructions are labored and vocabulary misleading, if not incorrect. Editing would have helped, but other than in providing an index, its effects, if any, are not evident.



*Patterns of Political Leadership: Lebanon, Israel, Egypt.* By R. Hrair Dekmejian. Albany: State University of New York Press, 1975. Pp. xii+323. \$20.00.

Michael M. J. Fischer

*Harvard University*

Dekmejian does three useful things. He collects together the social backgrounds of 409 cabinet ministers—64 in Israel (1948–73), 159 in Lebanon (1943–73), and 186 in Egypt (1952–73). He uses the information as a basis for describing the development and struggles of three very different efforts at nation building. And he compares the three sets of cabinet ministers.

The comparison yields a few mildly surprising formulations: the Egyptian elite is the most formally educated and the Israeli elite the least, even at one point called deficiently so (p. 252); Israel has more ministers with religious ordination than Lebanon or Egypt and thus a lower degree of political secularization (p. 227); more Egyptian and Lebanese ministers than Israelis have been trained in “the West” (more Israelis in Russia, p. 236).

Essentially, however, the account does not upset our daily newspaper understandings. Egypt and Israel both recruit ministers from the military while Lebanon relies heavily on lawyers. The Israeli and Lebanese systems are arenas for professional politicians, whereas the Egyptian system is more authoritarian, using apolitical experts (hence the high number of ministers with Ph.D.'s). Ministers come and go twice as quickly in Egypt and Lebanon as in Israel. The Israeli elite is the most representative of the general social class composition; the Lebanese the least, and note is made (with the Lebanese civil war getting under way) of the Lebanese elite's insensitivity to the problems of the poor, which may destroy the democratic-confessional system (p. 245).

Unfortunately the first chapter demeans the account with its claims. The study of elites, we are told, is significant because leadership is a universal. “Leadership as a unit of analysis” is characterized by “precision and elegance” (p. 3), and “the empirical-quantitative method assures precision and certainty” (p. 6). *Ensha'allah!* But no quantitative methods are reflected except in tables and percentages, only a paragraph noting that it might be possible to use factor analysis, path analysis, circulation indices, or Markov chains (p. 244). We get special pleading that no one studies elites (despite reference to some 50 people who do) and, more plausibly, that comparative studies of elites are rare. It is thus doubly odd that so little use is made of previous elite studies in the Middle East (e.g., Frey on Turkey, Zonis on Iran, Quandt on Palestine and Algeria, Porath on the early Palestinian movement, Waterbury on Morocco) to generate an initial comparative basis. (One reason perhaps is that those studies deal with attitudes and behavior, whereas Dekmejian focuses only on social background.)

Throughout, there is impatience with previous social theorists: sugges-

tions about the middle-class impetus in the Egyptian revolution (Binder and Beeri are mentioned) are dismissed as untestable due to incomplete data, and Lasswellian or Marxian notions are several times dismissed as economic determinism. Instead there are simply three "political cultures" (p. 5): *zu'ama'*, great families, and confessional groups in Lebanon; *aliyot* in Israel; Free Officers and conflicts between Nasser's charisma and revolutionary colleagueship in Egypt. (The reader is assumed to know Arabic and Hebrew terms like *zu'ama'*, *aliya*, *galut*, *yeshuv*.) At one point: "Ironically Weber's conception of charisma as a creative force did not apply to the individuals close to the leader [Nasser]; instead charisma induced conformity at the top" (p. 181)—but the latter was precisely Weber's point regarding Bismarck and not only those close to him but the whole parliamentary and bureaucratic system.

Dekmejian concludes, "Enduring peace in the Middle East may well depend on whether the [Egyptian and Israeli] elites perceive each other as equals in effectiveness" (p. 253). He considers that in the limited sense of moving them toward such a perception, the 1973 war was a good thing (pp. 251–52). Perhaps. But somehow it seems odd that an analysis of a revolutionary Arab socialist state (Egypt), a welfare-socialist state (Israel), and an unstably gerrymandered confessional state (Lebanon) can be satisfied with a notion of power as that which is exercised by cabinet ministers (p. 4).

*The Syrian-Lebanese in America: A Study in Religion and Assimilation.*  
By Philip M. Kayal and Joseph M. Kayal. Boston: Twayne Publishers,  
1975. Pp. 260. \$12.50.

Ayad Al-Qazzaz

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Despite the widespread ethnic awakening in this country and the increased interest of social scientists in minorities in the past two decades, the Arab minority did not capture the interest of social scientists until very recently. The smallness of the group, plus the Arab-Israeli conflict, discouraged many social scientists from choosing this group as a subject of concern and study. During the past few years, however, this trend has been reversed to some extent, with the publication of at least four full-sized books and over a dozen articles. The increased interest is due largely to the fact that the Arab community today is much more visible than it was. Several people of Arabic background have achieved prominent and visible positions, including Ralph Nader, Danny Thomas, Gibran, Senator James Abourezk, Omar Sharif, Fasiq al-Baz, and Michael DeBakey. Furthermore, the Arab-Israeli conflict, particularly after the Six Day War, took a new dimension, encouraging Arab-Americans to get organized on a political level to influence American foreign policy toward evenhanded policies. Thus, such groups as the Association of Arab-

American University Graduates and the National Association of Arab-Americans have come into being.

The book under review represents a welcome addition to the small library on this subject. It consists of 15 chapters of various lengths, ranging from five to 30 pages, plus a foreword by Michael Novak, a preface, and a bibliography. Methodologically, this book is different from other recently published ones on the subject, such as Elkholy's *The Arab Muslims in the United States* (New Haven, Conn.: College and University Press, 1966), *The Arab American*, edited by E. Hagopian et al. (Wilmette, Ill.: Medina University Press International, 1969), Zeadey's *Arabs in America: Myths and Realities* (Wilmette, Ill.: Medina University Press International, 1975), and *Arabic Speaking Communities in American Cities*, edited by Aswad (New York: Center for Migration Studies, 1974). Those books and others tend to consist of case studies of limited, small communities residing in one particular area and employ questionnaires or participant-observers as a technique to gather the necessary information and data. In contrast, the book under review deals with all Americans of Syrian-Lebanese origin regardless of residence and time. Furthermore, the author relies heavily on historical data to sketch the origin and development of this community over the years.

Three points deserve our attention in this short review:

1. It is impossible to state with certainty when the first Syrian emigrated to the United States or who he was. However, by the last quarter of the 19th century the number of Syrians was significant enough to draw the attention of the people of this country, as manifested by articles in local newspapers and by the adoption of the term "Syrian" as an entry in the classification of immigrants by the immigration office. The author of the book informs us that most early Syrian immigrants came to this country to escape political and economic oppression by the Ottoman Empire, which was manifested through heavy taxation, army consumption, and poverty. These persons came to America because for them it was a land of plenty and opportunity for all. Most of them were of Christian faith. Because they were uneducated and unskilled, they had to start at the bottom of the scale and move up. They worked as peddlers, grocery store owners, blue-collar workers, etc. Today, however, the children and grandchildren of these Syrians are represented in practically all walks of life, particularly in professional and industrial occupations. Indeed, the Syrian community is filled with immigrant Horatio Alger heroes. They include nationally known manufacturers, like J. M. Hagggar, who founded the Hagggar Company of Dallas, Texas; Elias Sayour, who founded Saybury Housecoats of New York; and the founders of the Farah Slacks Company of Texas and the Jerro Brothers Shoe Company of New York (p. 106).

2. The identity of Syrian immigrants passed through three stages. In the beginning they were called Turks, as Syria was once part of the Ottoman Empire and the early emigrants carried Turkish passports. Later, they were identified as Syrians (i.e., by the country from which they came). More recently, they have been identified more and more as

Arab-Americans, that is, by their nationality. To a large extent, this change has coincided with the political and social changes taking place in the Arab world. The Arab-Israeli conflict, from its inception and particularly since the Six Day War, subsequent massive Israeli military incursions in Lebanon, and the negative image applied indiscriminately by the mass media, which depict the Arabs as bloodhounds, fleshmongers, and a species with unquenchable appetites for bloodletting (p. 216)—all of these have forced these immigrants to form organizations to defend themselves and to influence American policies.

3. The future of the Syrian-Lebanese community and its ability to maintain itself as an ethnic group with a unique culture and style of life are in great doubt. Particularly among the generations born in this country the process of acculturation and assimilation is rapidly engulfing this community, as manifested in intermarriage, language, and other cultural components.

According to the author, the Arab-American community is "only marginally and selectively involved in the institutions of their ethnic community." This is due largely to the institutional incompleteness of their community and to the irrelevance of their primary institutions to present socioeconomic status and objectives. Furthermore, there has been a change in generations whereby the transmission and maintenance of ethnic identity have become irrelevant and unnecessary in today's urban society (p. 231).

The book suffers from several shortcomings. The most serious is the author's loose usage of several important terms, such as "Arab," "Middle East," and "Moslem," with no attempt to define them. Three examples will be sufficient: (a) The term "Middle East" is used as identical with the term "Arab world," although in fact, over one third of the Middle East (Turkey and Iran) is not Arab. (b) A person is classified as an Arab if he participates in the cultural style of the Middle East (p. 34) although many Iranians and Turks, for example, despite their participation in the Middle Eastern style of life, do not identify themselves as Arabs. (c) "Today, for all practical purposes, we have in this country three basic, distinct social groups with little or no contact among them: Syrian Christian, Syrian Jew, and Arab Moslem from Syria" (p. 61). Here the author equates the term "Arab" only with "Moslem," while in fact, anyone who speaks Arabic and identifies himself as Arab is an Arab, regardless of his religion. Indeed, many of the pioneers of the Arab Nationalist movement were of Christian faith.

Another error is the author's claim that Lebanon has a slight Christian majority (p. 55). In fact, students of Lebanon have known for many years that Muslims represented the majority of Lebanon, as their birthrate tended to be higher and there was a tendency among the Christians to emigrate.

Despite all these shortcomings and others, the book is must reading for all students of the Arab minority in this country and worthwhile reading for all students of minorities in America.

*Polish Americans: Status Competition in an Ethnic Community.* By Helena Znaniecki Lopata. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1976. Pp. xvii+174. \$5.50.

Joseph Galaskiewicz

*University of Minnesota*

In *Polish Americans*, Helena Lopata has made a valuable contribution to the study of ethnicity in the United States. Relying on her own research and that of fellow students of Poland and Polish-Americans, she has described and analyzed the foundation and development of the Polish-American community (Polonia) and its relationships to the broader national culture societies of Poland and America.

In the first chapter she outlines some of the problems of identifying Polish-Americans. This is often difficult, because Poland as a nation did not exist during much of the emigration and because the emigration took place in several waves. One solution she offers is to identify members of Polonia by recovering the networks of interaction among individuals and organizations that develop and are maintained in the context of shared cultural symbols (p. 6).

Chapters 2 and 3 examine the impact that the social structure of Polish society in the late 19th and early 20th centuries subsequently had on Polonia's relationship to Poland in later years and the development of Polonian institutions. The author argues that Polonia never fully supported the Polish national effort because of the persisting cleavage between the intelligentsia and the former peasants. Indeed, millions of dollars and a division of men were sent to Poland in the fight for independence; but although the intellectuals strongly supported the creation of a new Polish state, the masses never identified with the Polish national culture and supported friends and relatives only for personal reasons. Lopata argues that this was because in Poland the peasants had been virtually ignored by these same intellectuals and excluded from the national culture (pp. 22-23).

She also argues that the development of many of Polonia's institutions can be traced to particular character traits found among Polish peasants and a peasant tradition of excessive status competition (pp. 19-20). She rejects an idyllic peasant stereotype and describes Polish peasants as being individualistic, uncooperative, and competitive. Once in America, with greater opportunities for competitiveness, organizations proliferated and competition flourished (p. 46). The high level of status competition proved dysfunctional, however. It caused political schisms, weakened the community's capacity for concerted political action, and shamed the Polish community in the eyes of the larger society (p. 55). Furthermore, it encouraged professionals to build careers within the community (p. 56), prevented organizational leaders from coalescing and engaging in interorganizational enterprises (p. 62), and even had far-reaching effects on the family. Because of intense competition with other families, relations within the home tended to be cold and authoritarian.

Chapter 4 explores the relationship between Polonia and American society. There has been a long history in America of hostility toward Polish-Americans and other "aliens" (pp. 70-71). The latest revival came in the 1960s in the form of the "ethnic joke," just as third-generation Polish-Americans were achieving upward mobility and emerging from Polonia. Lopata correctly points out that this recent wave of character defamation was a jolt both to those who had left Polonia one or two generations ago and to those who were first competing in the larger society. She speculates on the possible sources of this bigotry and documents the attempts of the Polish community to defend itself.

In chapter 5 the author explores changes in the social structure of Polonia. She examines the education, occupations, and life-styles of the different waves of emigrants, their children, and grandchildren. The clear differences among the cohorts highlight the complexity of the Polish-American identity today. Lopata chastises ethnic researchers who operationalize Polish ethnic identity only in terms of how much the second and third generations have retained elements of the Polish folk culture. She cautions that a broader Polish identity linked to Polish national culture may well be on the horizon (p. 114).

In chapter 6 Lopata develops the concept of the "companionate circle." She defines this as "a loosely bound group of people from the same eth-class who interact with one another, belong to the same organizations, lead a similar style of life, and are identified by others as belonging to the same circle" (p. 119). The boundaries of these circles are penetrable. Thus individuals can easily move in and out of them, participating in the ethnic community to varying degrees. She then describes companionate circles of different elites in Polonia, how circles of elites interact, and how the structures of companionate circles differ from community to community.

Although I agree with most of what Lopata says, there are some points which I must dispute. First, because the social distance between the intelligentsia and the former peasants has persisted and will probably block any adoption of the Polish national culture by the second and third generations, the basis for this cleavage must be explored in detail. From my reading of *Polish Americans*, it seems that the peasants were never quite sure who the intelligentsia were. The intellectual's image of being the "cultured man, participating widely in the nation's cultural heritage, a man with a knowledge of history, literature, the arts and good manners" (p. 18), made it difficult for peasants to differentiate the proletarian avant-grade from disaffiliates of the old aristocratic order. If the former peasants perceived the intelligentsia only as survivals of their feudal past, their resentment is understandable. It simply reflected the old social class conflict in Poland. If they perceived the intelligentsia as part of the urban proletariat, their resentment may have been based on the anticlericalism of the revolutionaries. Unfortunately, however, neither of these hypotheses is fully explored.

Second, status competition may be an important dynamic social process in peasant as well as ethnic communities, but without comparative data it is difficult to believe that this phenomenon has been especially

characteristic of Polish peasant society or Polish-American communities, at least to the extent that it explains why Polonia's institutions developed differently from those of other ethnic groups. Furthermore, several other factors besides the "character" of the people could lead to status competition, and these also should have been examined.

Finally, I question Lopata's solution to the problem of establishing a meaningful Polish-American identity. Polish-Americans have always used pluralism as a crutch to legitimate and rationalize their segregation from the larger society, yet they are rejected as being only "pseudo-ethnics" by Polish nationals. Lopata suggests that Polish-Americans have two options: abandon any ethnic identity or adopt elements of the Polish national culture (pp. 147-48). Even if there were no resentment against the intelligentsia, however, I doubt that Polish-Americans could import and adopt a foreign culture without experiencing anomie. I would argue that a meaningful ethnic identity for Polish-Americans can develop only from the Polish ghetto experience. This seems to be the only option, even though such a culture would be "inferior" to the Polish national culture offered by the intelligentsia.

The current rejuvenation of interest in ethnicity may come more from rejection, defamation, and the need to defend oneself than from any romantic rediscovery of primordial roots. If so, this raises serious questions as to the role of ethnicity in American society. Regardless, our understanding of ethnic Americans is greatly enhanced by Lopata's new book.

*Social Analysis: A Marxist Critique and Alternative.* By V. L. Allen. London and New York: Longman Group Ltd., 1975. Pp. xxiii+316. \$19.00.

Peter Kivisto

*New School for Social Research*

The Cathari (the "Pure"), adherents to a heresy prevalent in southern France in the 12th century, afford a historically obscure example of the sectarian mentality. Indeed, their very obscurity is relevant to this ideal-typical construct because it serves to indicate the general historical fate of movements generated by such ideas. They advanced an oft-repeated soteriology based on a dualistic world view posed in terms of the realms of good and evil. True to form, these children of light sought to remain uncontaminated by the world of evil through a rigorous exclusionary policy. Thus, for example, the Old Testament was rejected as a tainted text, too much a part of the world of the flesh, while the New Testament, they would have one believe, emerged out of whole cloth. V.L. Allen's recent book proceeds in a similar vein: a thoroughly humorless book, devoid of subtlety and any semblance of irony, it is, indeed, the product of a mind hermetically sealed in a sectarian catacomb, whose rarefied atmosphere permits only the invocation of sacred liturgies.

The text purports to offer a critique of academic sociology, with special emphasis on organization theory, from the position of one "committed" not only to Marxism, but also to Kuhn's notion of scientific revolutions. This analysis, the author boldly states, is part of an inevitable collective process of emancipation from capitalist society. The blithe certitude of Allen's dialectical materialism is contrasted throughout with the varieties of nonconformist bourgeois sociology, exemplified by such figures as Gouldner, Bottomore, and Birnbaum. What characterizes academic sociology (including the above-mentioned internal critics), simply, is its static quality, while Marxism, in contrast, provides the sole possibility of analyzing dynamics. Bowing to Kuhn, the author characterizes the gulf between static and dynamic analysis as "incommensurable." The former mode of analysis, furthermore, serves a legitimating function: description proceeds to explanation, which summarily melds with a justification of an existing state of affairs. Or, static theory is synonymous with ideology; in particular, the ideology of the capitalist mode of production ("Adam Smith's theorizing was a necessary prop for the powerfully developing economic system of *laissez-faire*" [p. 72]). Dialectical materialism, on the other hand, becomes the dominant theory only when capitalism is laid to rest by a revolutionary overthrow. From Allen's perspective, this exemplifies the identity of theory and practice, although one is tempted to suggest that what it most clearly expresses is his denigration of thought from a manifestly mechanistic brand of Marxism.

The perplexity facing a reviewer reflects this fact, for the author, instead of developing an argument, merely offers a litany of ill-specified distinctions which are supposed to illustrate the polar opposition of Marxism and academic sociology. What is one to make of a person who can actually write that the word "dialectics" causes most theorists to "recoil" because "the political implications . . . are too much for the vast majority of Western sociologists to stomach" (p. 250)? Consider the passage where Allen contends, without elaborating, that Blau and Etzioni use the terms "change" and "dynamic" in a "decorative manner," thereby giving them "an imprecise and insipid quality" (p. 176). One further quotation is enough: "Sociology . . . has proceeded to reification via mystification caused by theoretical confusion" (p. 22). Indeed!

The book contains chapters on Weber, Etzioni, and March and Simon as representatives of static theorists and their limited understanding of organizations. It treats such topics with what is said to be an appreciation of such Marxists as Lukács, Gramsci (spelled incorrectly throughout), and Althusser. Further, it seeks to approach organization theory by integrating the work of an apparent mentor, W. Baldamus, which focuses on the issue of the significance of efficiency and skills in discussions of power differentials. Nowhere, however, does the text appear to stake a novel course of investigation; it is for true believers only.



*Knowledge and Politics*. By Roberto Mangabeira Unger. New York: Free Press, 1975. Pp. ix+336. \$12.95.

Martin McGuire

*University of Maryland*

Roberto Unger has given us a work stunning both in its ambition and in its breadth of scholarship. The premise of the book is that within the liberal tradition all of epistemology, economics, psychology, sociology, ethics, theology, and jurisprudence lead to a common cul-de-sac. In their modern forms each of these sciences, says Unger, creates an inconsistent or self-defeating dichotomy between abstract generalities (universals, theories, rules) and concrete particulars (facts, desires, individuals). Unger is at his best in exposing the various perceived guises of this common flaw in modern thought.

The paradigm of this conflict obtains in our "liberal" theory of knowledge. If, as liberal epistemology claims, facts do not fall into natural "self-evident" predetermined categories, then it is our theories that must determine what is to count as a fact. "A fact becomes what it is for us because of the way we categorize it." We therefore can make no direct appeal to reality because "reality is put together by the mind" (p. 33). One requires some sure knowledge of concrete particular reality, however, if, as we also believe, we can choose among conflicting theories by recourse to facts. The book gives profuse illustration of similar, derivative difficulties in other branches of science. Examples range from the conflict between public roles (universals) and private life (particulars) in the individual personality, to the conflict between legislation and adjudication of laws.

Unger expects a great deal from philosophy, the energy in forming this book being a demand that philosophy actually resolve such conflicts. The liberal instinct is to expect less, to coexist with the competing claims of theory as defining fact and facts as sustaining theories, and to seek some balance in a historical process in which facts and theories are continually redefined. Similarly, the liberal instinct is to see a historical balance of the conflicting claims of impersonal general moral rules and personal particular feelings of mercy or retribution. Without some such balance the authenticity of scientific progress as uncovering reality is placed in doubt. Yet Unger rejects both psychological and historical constructs which might validate the evolution of knowledge by reference to universally shared categories of the mind (whether born of a teleology of history or an inherent similarity of men). Instead, he beckons us back to the age of faith, of intelligible essences, of natural law, and of feudal society to solve these riddles. We have, in fact, come to expect rather little in the way of reassuring certainty from our philosophy, science, law, or religion. Unger craves this kind of certainty, thinks we all do, and bids us look to the consciousness of individuals—and to social consciousness as realized in social organization and experience—for the source of our desired tranquillity. "The division of the world into an order of ideas and an order of

events, with their corresponding methods of logical analysis and causal explanation, must not be accepted as the eternal fate of thought. Between the order of ideas and the order of events, there is a third realm, the order of consciousness, mind, culture or social life." Moreover, "every general way of thinking that dominates the ideas of an age has to be understood as a phenomenon of consciousness rather than just as a theory" (p. 107).

Our escape from the liberal impasse accordingly lies in anticipating the present drift of social consciousness. Appropriately, therefore, Unger's construction of a philosophy to replace Liberalism begins with a theory of the "welfare-corporate state," which is to say of a consciousness or culture to replace liberalism. Liberalism is about to be overthrown by a secular version of pantheism. "The principle of common meaning that ties together the features of the emergent consciousness is a religious conception of the world and of society" (p. 179). Thus for Unger the answer to our disquietude remains religion just as in the Age of Faith, but now secularized, an evolving reference for man and nature, a converging reverence for individual men and their individual works. Unger's hope is that human evolution may lead toward organic communities, based on shared values and thereby realizing the essential goodness of human nature. This is religion without theology. We should pin our hopes on the self-realizing goodness of human nature; we should agonize less about the paradoxes the mind has created and observe-enjoy the evolution of organic social consciousness more.

Unger's work is utterly vulnerable to piecemeal attack by positivists at one extreme and by dogmatic theologians at the other. Such attack will surely be made and just as surely will miss the point: this book is not merely a logical argument; it is meant instead to appeal to the realm of consciousness, as would a painting or an architectural construct. *Knowledge and Politics* is at once exciting and frustrating, exciting as a piece of poetry, frustrating for being rendered in prose.

*Objectivity in Social Science.* By Frank Cunningham. Toronto: University of Toronto Press, 1973. Pp. iii+151. \$8.50.

Stephen M. Aigner

*Iowa State University*

Rarely, if ever, do we reflexively examine ontological, epistemological implications of mainstream professional sociological enterprises. The press of contributing to our discipline and elaborating on prior accumulations of research and scholarship in our specialty constricts our focus. Sometimes, however, in a relaxed unguarded moment, we inquire of ourselves, "Of what lasting significance is my work . . . does it really matter?" On such an occasion you may turn to a book like Frank Cunningham's *Objectivity in Social Science*, saying to yourself, "Maybe this book will relieve my discomfort concerning the validity of my re-

search endeavors and the assumptions I have made about causality." Unfortunately, such discomfort is not resolved.

Cunningham undertakes his book for two reasons. First, he states that he has lost patience with classroom agnosticism and the hypocrisy of antiobjectivists. To say it is impossible to debate the relative superiority of one position over another is unacceptable to him. He is impatient also with the hypocritical pseudo-objectivist who employs the language of rigorous scientific objectivity, piously prefaces his views with statements about the need for objectivity, and then substitutes mere rationalization for conclusions in order to affirm a view "he antecedently holds or believes it opportune to hold. . . ." (p. vii). Second, Cunningham does not want to acknowledge the possibility of being deluded himself. He is a "scientific" Marxist. He believes that arguments favoring neutrality imply that people are deluded if they believe they adopt explanatory views objectively.

For these reasons he seeks to provide "a convenient map for finding one's way about in the tangle of issues surrounding the question of objectivity in social science" and "a set of arguments sufficient to convince the perplexed and previously wrong-headed of the (objective) falsity of social scientific anti-objectivism" (p. ix). At most, his arguments will illuminate possible sources of our discomfort.

The convenient map which Cunningham produces does little more than tell us about the alleged pitfalls of antiobjectivism. Except for a few pages of definition, the reader has no direct clue about the substance of objectivity. We are told what it is not, but we are not told what it is.

An objective inquiry, Cunningham states, must satisfy two criteria. (1) It must be possible for descriptions and explanations to reveal the true nature of the subject matter inquired into, that is, "the qualities and relations of a subject matter independently of an inquirer's thoughts and desires regarding them." (2) It is impossible for "two inquirers holding rival theories about some subject matter and having complete knowledge of each other's theories (and the grounds of each) to both be justified in adhering to their theories." Thus, for the conclusions of a social science theory to be objectively true, the quality and relations attributed by its conclusions must be those actually possessed by and apparent from its subject matter. Cunningham then lays the ground for the chapters which follow. First, we are disabused of misconceptions about objectivism: it is not positivism, behaviorism, determinism, inductivism, or detachment from extrascientific demands of social, political, and economic life. Second, we are instructed that positions held by proneutrality "antiobjectivists," such as argument from values, argument from selection, and historicism, are insufficient by themselves.

I believe Cunningham correctly and skillfully dispatches the positions of argument from values and argument from selection. In his discussion of historicism, however, he exposes a crack in the foundation on which his argument rests. Mannheim's historicist argument seems to be a general statement of specific antiobjectivist arguments such as the nature and

history of science, linguistic relativism, perceptual relativism: the content of knowledge at any particular time and place is affected by the "temporal and social conditions of its emergence." Cunningham describes what he calls the theory-ladenness view: "If the theories one holds determine what his perceptions and interpretations of things described by the theories can be, so that his adoption or abandonment of a theory cannot depend on his recognition of qualities and relations of the things concerned, then it would be plausible to argue that their adoption or abandonment is dependent on his values or non-scientific circumstances of his historical period" (p. 21). Consequently, the author notes, the antiobjectivist encounters two issues: (1) "no two theories of sufficient generality could ever really disagree since they could not be said to be purporting to explain the same things"; (2) no proponent of this position, itself part of a theory, could consistently claim that a position which contradicts his own is false while his own is simultaneously true. This second consequence, Cunningham contends, forces the antiobjectivist to choose between not believing his own theory and asserting that it is objectively true. This "paradox" is predicated on an assumption on which the entire book is based: if a person sincerely believes a theory, he concomitantly believes it to be objectively true.

This assumption is the crux of Cunningham's attack on subsequent antiobjectivist positions of the Kuhnian approach to the nature and history of science, of linguistic relativism, and of perceptual relativism. He spars with antiobjectivists by using excerpts from their works to construct dialectics. Sometimes he catches the antiobjectivist defending his position as if its objective truth could be ascertained. Then he uses that contradiction to discredit the position, instead of the view itself.

He claims that to hold a view, a theory, without necessarily believing it to be true would be "thorough-going skepticism." Is thoroughgoing skepticism so unreasonable? Notwithstanding the specter of nihilism implicit in Cunningham's use of the phrase, do we as social scientists consider views tenable without also believing them to be true? Of course. Not only are we circumspect with regard to the correspondence between "observational laws" and "theoretical laws" but also we are reluctant to claim that we have reliable and valid observations.

Cunningham shows his naiveté about research when he states that "nobody has or could ever hold" the position that "rational acceptance or rejection of any theory or view requires some criterion, but then rational evaluation of a criterion would always be circular or generate an infinite regress" (p. 34). In a chapter entitled "The Social-Scientific Subject Matter," he tries to remove from the reach of antiobjectivists the position that human beings are different from the objects of natural sciences and that the possibility of objectivity allowed for natural sciences is inapplicable to social sciences. His case depends in part on two problematic contentions (p. 95): (1) measurability is not a requirement of objectivity for any science; and (2) not "all mental phenomena are in principle incapable of measurement." To support the second contention the author points to techniques of questionnaire construction and survey-data analysis entail-

ing the mathematical expression of underlying attitudes and beliefs. Had Cunningham discussed such endeavors with more practitioners, from stages of instrument construction to the choice of statistical measures and probability distributions, he might realize that researchers can be thoroughgoing skeptics indeed. Were he familiar with the work of modern physicists such as Heisenberg, he might even raise the question whether we can attribute objectivity to either social science or natural science.

Explorations into the nature of reality as a multidimensional space, some points of which receive consensual collective agreement and are thereby passed on as a collective mindscape called culture, punctuate the growth of knowledge in the 1970s. John Lilly's experiments on the reticular activating system of the human brain, for example, call into question previous assumptions regarding the construction of material reality. In sociology, the advent of ethnomethodology manifests a comparable intrusion into more conventional constructions of reality. Even though the ontological basis for our socially constructed reality may be changing, however, it does not follow that antiobjectivists are socially conservative nihilists who reject compassion and programmatic attention to human rights and equality. Although I share Cunningham's concern about classroom sterility and the attendant absence of commitment to social change, I also regret his avoidance of the substance of the antiobjectivist and the objectivist positions. Instead of merely exposing weaknesses in the supporting arguments of Polanyi, Kuhn, Hempel, and other antiobjectivists, a critic should devote attention to their position itself. This book neither does so nor offers persuasive presentations of objectivism.

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